receiving one or more information transmissions, each of said information transmissions including processor instructions and a program;

performing an error correction routine by processing at least one portion of said at least one information transmission;

programming said receiver station to perform at least one failure handling routine in accordance with said processor instructions;

E8 cont.

discerning a failure evidencing at least one of incomplete programming and an incorrect program element in said memory; and

executing said at least one failure handling routine in consequence of said step of discerning a failure;

wherein said at least one failure handling routine is performed in accordance with said processor instructions and wherein said method controls said receiver station.

II. REMARKS

Applicants have reviewed the Office action mailed September 5, 2002 and fully address herein the rejections contained therein.

The Office action begins with Section I that recites a number of issues that are neither rejections of nor objections to the claims of the instant application. Applicants address Section I of the Office action below, but note that the issues raised are not relevant to the patentablity of the claims in this application. For this reason, Section I of the Office action is improper and should therefore be withdrawn in its entirety.

Section I of the Office action is followed by Sections II-V that assert the following rejections of the pending claims.

Claims 5-34 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claims 5-34 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Applicants reply herein to each ground of rejection presented Office action. Applicants hereby request reconsideration of the instant application.

A. Response To Section I Of The Office Action.

The Office action begins by identifying a list of 30 "Examples" of issues that have been raised in some of applicants' copending applications. The Examiner alleges that in some cases applicants have "handled and addressed" these issues inconsistently in different applications. The Examiner states that the list of "Examples" will be maintained by the Patent Office "in an attempt to ensure consistency in the way that these issues are handled between applications in the future." 9/05/02 Office action, p. 2.

Applicants respectfully submit that the "Examples" are simply irrelevant to the prosecution of the instant application for a number of reasons. The Patent Office itself has acknowledged that the list of 30 Examples is not relevant to certain applications because applicants have not asserted priority in those applications to the filing date of applicants' 1981 application:

> It is examiners position that after a series of interview, it has been mutually agreed upon that the instant application is entitled the earlier priority date of 9/11/87 based on the 07/096,096 application and not the 11/3/81 date based on the 06/317,510 application. Therefore, the written description and the enablement under 112 1st paragraph should be limited to the 1987 specification only. Additionally, the remarks set forth in Paragraph III, items 1-30 [the "Examples"] of the instant office action are carried over from other office actions in similar cases and are presented herein because in the past there have been disagreements between the priority date that the applicants are entitled to. The examiner will withdraw paragraph III from subsequent actions in the instant case application if applicants confirm on record in the next

> communication that the instant application is entitled to only the 1987 priority date and the citations for claim support will be only provided for the 1987 specification.[1]

The Examiner's position that he will withdraw the irrelevant 30 Examples only if "applicants confirm on record in the next communication that the instant application is entitled to only the 1987 priority date" is improper. Whether or not *a particular claim* is afforded the benefit of an earlier filing date under § 120 simply depends on whether the requirements of § 120 are met *for that claim.* A claim either is or is not entitled to an earlier filing date, and such a determination cannot be made without conducting the appropriate claim-by-claim analysis required by the controlling authorities. Of course, it is applicants' decision whether or not to invoke § 120 in order to overcome an intervening reference. In the instant application, applicants have *not* invoked § 120 to avoid any intervening reference. Additionally, applicants have demonstrated specification support below only with respect to the 1987 specification. Accordingly, the 30 Examples should be withdrawn.

Applicants question the relevance of the 30 Examples, as well as applicants' need to respond to these Examples, because none of the examples forms the basis for any objection to or rejection of a pending claim. *See* 37 C.F.R. § 1.111 ("In order to be entitled to reconsideration or further examination, the applicant . . . must reply to every ground of objection and rejection in the prior Office action."). Further, none of the Examples even refers to any claims that are presently pending in the instant application. Accordingly, the 30 Examples simply have no bearing on the prosecution of the claims pending in the instant application, and are therefore improper.

Applicants further question the basis for including the 30 Examples in the instant application and applicants' need to respond to the Examples, because the vast majority of the Examples have appeared at least once before in other applications and because applicants have already responded to the vast majority of the Examples on the record in their copending applications. For example, all 30

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[1] This paragraph was included in Office actions in the following applications: 08/487,397 mailed 9/06/02; 08/438,011 mailed 9/06/02; 08/447,496 mailed 9/06/02; and 08/479,215 mailed 9/05/02.

Examples appear in identical form in the 07/17/02 Office action received in application Ser. No. 08/470,571 ("the '571 Application"). Additionally, at least 20 of the current Examples previously appeared in the 08/28/01 Office action in the '571 Application. Accordingly, applicants, in their 01/28/02 and 01/09/03 Responses filed in the '571 Application, have already fully responded on the record to all of the 30 Examples listed in the instant application.

In addition to the identical "Examples" being repeated from other recent Office actions, applicants note that many of the issues discussed in the 30 Examples have been raised by the Examiner before in slightly different forms in applicants' various copending applications. In addressing such issues, applicants have at all times strived to respond in a consistent manner in all of applicants' copending applications. Accordingly, applicants believe that the Examiner is mistaken in his assertion that applicants have "handled and addressed" the issues raised in the 30 Examples "inconsistently."

The 30 Examples are not relevant to the instant application, and applicants respectfully request that the Examples be withdrawn and that the Examiner acknowledge the lack of relevance of the 30 Examples to the prosecution of the instant application. Notwithstanding applicants' position regarding the lack of relevance of the 30 Examples to the prosecution of the instant case, applicants provide the following responses[2] to the 30 Examples. Applicants reserve their right to further address any of the 30 Examples if, for example, they are ever raised in the context of an actual rejection or objection.

Examples 1-3

Examples 1-3 address various issues concerning applicants' ability to claim priority to their 1981 application and the proper test for demonstrating priority under 35 U.S.C. § 120. Because

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[2] More detailed responses to many of the Examples appear in, among other places, applicants' 01/28/02 Response, 05/06/02 Response to Interview Summary, and 01/09/03 Response filed in the '571 Application.

applicants have not asserted priority to their 1981 application for any of the pending claims in the instant application, Examples 1-3 are wholly irrelevant to the instant application.

In Example 1, the Examiner discusses prosecution of applicants' copending application Ser. No. 08/470,571. More specifically, the Examiner focuses on the need to first demonstrate written description support in applicants' 1987 specification when claiming priority under § 120. Applicants have not asserted priority under § 120 to the date of their 1981 application for any of the pending claims in the instant application, and applicants have identified detailed written description support in their 1987 specification for each and every pending claim in the instant application in Appendix B. Further, applicants respectfully disagree with the Examiner's characterization of their position regarding priority in their copending applications. Finally, in addition to being totally irrelevant to the instant application, applicants submit that the assertions made by the Examiner in Example 1 are improper in the absence of any priority claim made by applicants under 35 U.S.C. § 120 to their 1981 application for any claim in the instant application.

In Example 2, the Examiner takes issue with applicants' discussion and position regarding the proper test for demonstrating priority under § 120. Again, the Examiner refers to applicants' responses filed in the '571 Application. Although applicants continue to disagree with the Examiner's description and application of the legal test for demonstrating priority under § 120 (for the detailed reasons set forth by applicants, e.g., in their 01/09/03 Response in the '571 Application), the issue of priority under § 120 is simply not an issue in the instant application.

In Example 3, the Examiner further discusses applicants' ability to demonstrate priority under § 120 and their ability to support claims pending in the '571 Application using applicants' 1987 specification. Applicants believe that the issues raised in Example 3 are irrelevant to the instant application and submit that the Examiner has mischaracterized applicants' position regarding their ability to demonstrate written description support in both the 1987 and 1981 specifications for the claims pending in the '571 Application and other applications in which applicants are asserting priority under § 120.

Applicants' positions with respect to the various issues related to applicants' ability to claim priority to the date of their 1981 specification and the proper legal test for demonstrating priority under § 120 has been discussed in detail in applicants' submissions in the '571 Application. Applicants will continue to provide the factual and legal bases that justify their claim of priority to their 1981 application in those copending applications where such claim is appropriate and necessary (i.e., if intervening art is applied and applicants elect to invoke § 120 to overcome such intervening art).

Example 4

In Example 4, the Examiner discusses a claim limitation (i.e., "locally generating" images) relevant to certain claims pending in applicants' '571 Application. Applicants respectfully disagree with the Examiner's assertion in Example 4 that Teletext decoders locally generate images for output or display in the same manner that is being claimed in certain ones of applicants' copending applications, and applicants have already addressed the issue of whether the prior art applied by the Examiner teaches local generation of images in the '571 Application. If the Examiner bases a rejection of or objection to any claim pending in the instant application on the issues found in Example 4, or asserts that the issues found in Example 4 are in any way relevant to the instant application, applicants will address any such assertions at the appropriate time.

Examples 5 and 27

In Examples 5 and 27, the Examiner discusses the "Teletext prior art" and the inventions disclosed in applicants' 1987 specification in the context of an Office action and a Response filed in the '571 Application. The Examiner asserts in Examples 5 and 27 that applicants' 1987 "packetized SPAM" structure represents little more than applicants' own version of a "conventional extended Teletext system." In Example 27, the Examiner further asserts that certain structures recited in some of applicants' claims pending in the '571 Application (namely, a receiver, a signal detector, a processor, and an output device) are also "found within a conventional CPU/MP/computer implemented Teletext" receiver. These examples are not discussed or applied in the context of any

of the claims pending in the instant application and the Examiner does not reject any of the pending claims based on the arguments made in Examples 5 and 27. If and when the Examiner makes rejections of specific pending claims on the basis of issues raised in Examples 5 and 27, applicants will further respond to such a rejection. Notwithstanding the lack of relevance of Examples 5 and 27 to this application, applicants strenuously disagree with the Examiner's disparaging assertions and characterization of the subject matter disclosed in applicants' 1987 specification. Finally, applicants note that they have previously addressed how applicants' claims differ from many "Teletext" prior art references in prior responses filed in copending applications.

Example 6

In Example 6, the Examiner discusses applicants' ability to obtain priority to their 1981 filing date for claiming "computer software." The Examiner discusses this issue with respect to arguments advanced in applicants' '571 Application related to applicants' prior use of the term "programming" in claims pending in the '571 Application. Applicants have fully addressed the issues raised in Example 6 in the '571 Application. The issues raised in Example 6, however, are not relevant to the instant application because applicants have not asserted priority under § 120 to the date of their 1981 application for any of the pending claims in the instant application. In fact, in Example 6, the Examiner acknowledges that applicants' 1987 specification does disclose the downloading of computer software. Notwithstanding the lack of relevance of Example 6 to this application, applicants disagree with the Examiner's position regarding applicants' ability to obtain priority to their 1981 filing date for claims that include the term "programming."

Example 7

In Example 7, the Examiner alleges that Teletext decoders found in the prior art are "signal processors" as the term "signal processor" is used within the context of applicants' claims pending in the '571 Application. Again, the issues raised in Example 7 are not discussed in the context of any claim currently pending in the instant application. Applicants do not understand the relevance of Example 7 to any of the claims currently pending in the instant application and no attempt is made to

apply the discussion in Example 7 to the instant claims. Notwithstanding the lack of relevance of Example 7 to this application, applicants respectfully disagree with the Examiner's assertions and characterization of Teletext decoders found in the prior art and the signal processor disclosed by applicants. Applicants submit that the signal processors disclosed in applicants' specifications perform functions that are not disclosed in the cited Teletext prior art references. Finally, applicants will address these issues if and when an actual rejection is made by the Examiner based on the issues raised in Example 7.

Example 8

In Example 8, the Examiner asserts that it is applicants' position that applicants' claimed/disclosed technology is not "correlated/analogous" to Teletext technology. The Examiner, however, fails to provide any details regarding his position that "conventional Teletext systems" generally are correlated or similar to applicants' claimed technology. Indeed, such generalized "correlations" or "analogies" are wholly irrelevant to the issue of whether or not applicants' claims are patentable. Applicants' position is that none of the specific references, related to Teletext or otherwise, alone or in combination, teach the methods and apparatus claimed by applicants. The Examiner further argues that applicants have previously indicated it is their belief that the scope of many of their pending claims encompasses the "Weather Star" system/receiver technology. First, the question of whether or not a particular system would be covered by a pending claim is wholly irrelevant to the examination of the instant claims, unless such system is prior art. The Examiner has not established that the Weather Star system is prior art. Second, although the Examiner vaguely refers to applicants' "pending amended claims," he makes no reference to a specific application *or a specific claim.* Due to the Examiner's broad treatment of these issues, applicants cannot respond in any meaningful manner to the issues raised in Example 8.

Example 9

In Example 9, the Examiner discusses an issue that arose in the prosecution of the '571 Application regarding whether "digital television signals/programming" was well known in the

relevant art at the time that applicants filed their specifications. In their 1/28/02 Response filed in the '571 Application, applicants fully addressed the Examiner's rejections under § 112, second paragraph, of claims with limitations of "digital television." Further, applicants maintain their position stated in the '571 Application regarding the Schwartz et al. reference. Applicants note that there are no rejections of or objections to any of applicants' pending claims in the instant application based on the issues raised in Example 9, and applicants reserve the right to further respond to the issues raised in Example 9 if any of these assertions are relied on to object to or reject any claim in the future.

Example 10

In Example 10, the Examiner discusses two references of Zaboklicki: DE 2,914,981 and GB#2,016,874. Despite the Examiner's characterization of applicants' arguments regarding these references, applicants maintain that neither Zaboklicki reference anticipates or renders obvious any of applicants' pending claims in the instant application. Applicants have previously addressed issues raised in Example 10 in the '571 Application, and applicants will continue to address in detail any rejection under § 102 or § 103 in which a Zaboklicki reference is applied.

Examples 11, 12, 15 and 16

In Examples 11, 12, 15 and 16, the Examiner discusses applicants' use of the term "programming" in the 1981 and 1987 specifications. More specifically, Examples 11, 12, 15 and 16 assert that applicants cannot claim a 1981 priority date for claims including the term "computer programming," because of an allegedly narrow definition of that term in the 1981 specification. The issues raised in Examples 11, 12, 15 and 16 are only relevant if applicants rely on § 120 to obtain the benefit of their 1981 filing date. As applicants have not claimed priority to their 1981 application for any claims currently pending in this application, the issue is not relevant to the instant application. If and when the Examiner asserts that the issues found in Examples 11, 12, 15 and 16 are relevant to the claims pending in the instant application, applicants will respond at the appropriate time. Finally,

applicants have fully addressed the "programming" issues raised in these examples in several prior responses filed in the '571 Application.

Example 13

In Example 13, the Examiner discusses whether or not radio and television arts represent non-analogous arts. The Examiner states that applicants have previously asserted that the radio and television arts are non-analogous arts. The Examiner's assertions in Example 13 do not form the basis for any rejection of or objection to any specific claim pending in the instant application. To the extent necessary, applicants will further address the issues raised by the Examiner in Example 13 if and when such issues are ever raised in the context of a rejection of or objection to a specific pending claim based on specific applied references in the identified arts.

Example 14

In Example 14, the Examiner discusses issues related to a claim recitation (simultaneous and sequential) in the context of two of applicants' copending applications (i.e., the '571 Application and Application Ser. No. 08/469,078. The Examiner's assertions in Example 14 do not form the basis for any rejection of or objection to any specific claim pending in the instant application. To the extent necessary, applicants will further address the issues raised by the Examiner in Example 14 if and when such issues are ever raised in the context of a rejection of or objection to a specific pending claim. Additionally, applicants note that they have fully addressed issues related to the Examiner's concerns regarding "simultaneous and sequential" in their January 28, 2002 Response filed in the '571 Application.

Examples 17-20 and 23-26

Examples 17-20 and 23-26 discuss various issues related to applicants' ability to obtain a priority date based on their 1981 application and the proper legal test to be applied when analyzing an applicants' ability to obtain a priority date under § 120. None of the issues discussed in Examples 17-20 and 23-26 is relevant to the instant application because applicants have not asserted a 1981

priority date for the claims pending in the instant application. Further, applicants have addressed the issues related to priority in detail in their responses filed in the '571 Application and Application Ser. No. 08/487,526.

Example 21

In Example 21, the Examiner describes and compares the technology disclosed by applicants in their 1981 and 1987 specifications and asserts that the technology disclosed in applicants' two specifications is "vastly different." While it is true that the 1987 application includes many enhancements and improvements, applicants maintain that the subject matter disclosed in their 1981 application is also disclosed in the 1987 application. Second, because applicants have not asserted a 1981 priority date for the claims pending in the instant application, applicants' 1981 specification and any comparison between applicants' 1981 and 1987 specifications are not relevant to the instant application. Finally, the issues raised in Example 21 have previously been addressed in the '571 Application. Applicants will continue to provide appropriate factual and legal arguments as to why they are entitled to a 1981 priority date in all cases where it is relevant.

Example 22

In Example 22, the Examiner discusses a perceived difficulty in interpreting terminology in applicants' claims in light of the 1981 and 1987 specifications. More specifically, the Examiner asserts that certain terminology in applicants' claims takes on different interpretations when such terminology is read on different teachings from applicants' 1981 and 1987 disclosures. The alleged "problem" described in Example 22 is simply not applicable to the instant application because applicants have not asserted a priority date based on their 1981 application for any claim pending in the instant application. In the instant application, only the 1987 specification is used to support the pending claims. Accordingly, the issues raised by the Examiner in Example 22 are not relevant to the instant application. Further, applicants have fully addressed Example 22 in the '571 Application.

Example 28

In Example 28, the Examiner discusses a specific claim pending in the '571 Application (claim 56). Specifically, the Examiner questions applicants' written description support for the recitation "interactive ultimate receiver station" previously appearing in claim 56 of the '571 Application. Applicants maintain that both the 1981 and 1987 specifications unquestionably disclose "interactive receiver stations." *See, e.g.,* 1981 Specification col. 20, ll. 23-27, and "Local Input" in Figure 6D; 1987 Specification, p. 288, ll. 1-20. The Examiner's assertions in Example 28 do not form the basis for any rejection of or objection to any specific claim pending in the instant application. To the extent necessary, applicants will further address the issues raised by the Examiner in Example 28 if and when such issues are ever raised in the context of a rejection of or objection to a specific pending claim. Finally, applicants note that they have already fully addressed Example 28 in the '571 Application.

Example 29

Example 29 discusses limitations directed to combining images (e.g., where a "portion" of an image is "replaced" by a portion of another image) which are allegedly present in claims in applicants' '571 Application. Applicants maintain that applicants' specifications broadly teach the combining of images. The Examiner's assertions in Example 29 do not form the basis for any rejection of or objection to any specific claim pending in the instant application. To the extent necessary, applicants will further address the issues raised by the Examiner in Example 29 if and when such issues are ever raised in the context of a rejection of or objection to a specific pending claim. Further, applicants have already fully addressed the issues raised in Example 29 in the '571 Application.

Example 30

In Example 30, the Examiner discusses the publication date of article/reference by Gunn et al. Applicants acknowledge that the Gunn reference is a transcript from a conference in London that

took place from March 26-28, 1980. But this information alone does not qualify the reference as prior art (i.e., it was unclear when the paper was published). However, since the mailing of the 7/17/02 Office action in the '571 Application, applicants received a copy of the Gunn reference that bears a Massachusetts Institute of Technology Library received stamp dated December 4, 1980. The Examiner also alleges in Example 30 that applicants have previously neglected to provide the Office with information regarding the publication dates of many references. Applicants have diligently supplied the Office with references as they have become known to applicants. In some instances, applicants were not provided with dates of certain references, so applicants were not able to provide the Office with dates for each and every reference identified on some of applicants' Information Disclosure Statements. Additionally, applicants submit that the discussion in Example 30 is not relevant to the instant application because the Gunn reference is not applied against any claim pending in the instant application.

B. Response To Rejections Under Section 112, Second Paragraph.

Claims 5-35 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Applicants address each ground of rejection under the second paragraph of Section 112 as follows.

The Examiner has noted that the claim have been written with "alternative-type" recitations. The Examiner stated that the claims must be clear and concise, support must be provided for each permutation of a claim, and that prior art needs only to anticipate or make obvious one permutation of the claim to properly reject the claims. Applicants assert that all of the pending claims, as amended, are clear and concise. Applicants further assert that support has been provided for every permutation of each pending claim. Finally, the Examiner's point about prior art is not relevant because no prior art has been applied.

Claim 5 has been rejected for reciting the term "reprocessing." The term "reprocessing" has been replaced with "processing," thus overcoming this rejection. Similar amendment have been

made to claims 23-25, 27-29, and 33.

Claim 10 has been rejected for reciting the term "at least some of an address." The term "at least some of an address" has been replaced with "target number," thus overcoming this rejection.

Claim 13 has been rejected for antecedent basis problems. Claim 13 has been amended to depend from claim 12, as suggested by the Examiner, thus overcoming this rejection.

Claim 16 has been rejected because the Examiner stated that it was not clear what was meant by "performing forward error correction information." Claim 16 has been amended to insert --on-- before the term "information," as suggested by the Examiner, thus overcoming this rejection.

Claim 23 has been rejected because the Examiner stated that the term "processor instruction" provides no antecedent basis for later recitations of "processor instructions." Claim 23 has been amended to recite "processor instructions" to provide antecedent basis for later recitations of "processor instructions," as suggested by the Examiner, thus overcoming this rejection..

Claim 23 has been rejected because the Examiner stated that "said processor instructions" had no antecedent basis. The first recitation of the term in question is "a portion of said processor instructions." The next recitation refers to "remainder of said processor instructions." Subsequently, "said processor instructions" are recited. The "processor instructions" remain the same in each recitation and the "remainder of" and "portion of" refer to parts of the same processor instructions. Applicants submit that the forgoing comments overcome this rejection.

Claim 23 has been rejected because the Examiner stated it is not clear whether the recitation of a received "information transmission" referred back to a prior recitation of "information transmission." Claim 23 has been amended to recite a transmitted "information transmission." This amendment makes it clear that this recitation of "information transmission" refers back to the one previously transmitted as recited in the claim as amended, thus overcoming this rejection.

Claim 23 has been rejected because the Examiner stated it is not clear whether the recitation of a received "information transmission" was received in an explicitly recited receiving step. Claim

23 has been amended to recite a "first information transmission" and a "second information transmission" rather than a "received" "information transmission," thus overcoming this rejection.

The Examiner rejects claims 24 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to "recite positive steps that comprise the method." The Examiner stated that the recited "effects" in lines 6-11 and lines 12-17 implicitly set forth steps without positively reciting them. The term "effects" in lines 6-11 has been replaced with "causes a transmission station to complete a program" thus overcoming this rejection. The term "effects" in lines 12-17 has been replaced with "causes a receiver station to complete a program" thus overcoming this rejection.

The Examiner stated that "similar clarifications are needed throughout the claims." Applicants assert that amendments similar to those discussed above have been made throughout the claims, as requested by the Examiner.

C. Response To Rejection Under Section 112, First Paragraph.

The Examiner prefaces his rejections under § 112, first paragraph, by listing a series of quotations from a decision issued in prior litigation pending before the International Trade Commission (ITC) involving one of applicants' issued patents. In Section III, the Examiner simply lists several quotations and then states that the Examiner "continues to adopt these same positions in regard to the pending amended claims currently at issue." Apparently, the Examiner includes these quotations to support his rejections under § 112, first paragraph. The Examiner, however, fails to provide any discussion or explanation regarding the proper procedural and factual context of these quotes. Placed in an accurate and proper context, the record from the ITC litigation actually supports applicants' position that the pending claims are justified by the instant specification.

Before addressing the specific passages quoted in the Office action, applicants must first provide a procedural overview of the ITC litigation. In the litigation before the ITC, the owner of applicants' issued patents and the assignee of the instant application, Personalized Media Communications L.L.C. (PMC), alleged that certain products imported into the United States

infringed several claims of U.S. Patent No. 5,225,277. Following an evidentiary hearing, the ITC administrative law judge, Judge Luckern, issued a decision entitled "Initial and Recommended Determinations" (Initial Determinations) on October 20, 1997. *See In re Certain Digital Satellite Sys. (DSS) Receivers & Components Thereof*, No. 337-TA-392, 1997 WL 696255 (Int'l Trade Comm'n Oct. 20, 1997). In connection with the evidentiary hearing, three separate groups submitted briefs and arguments to Judge Luckern: 1) PMC; 2) the accused infringers (Respondents); and 3) the ITC Staff. Judge Luckern's Initial Determinations made various findings and concluded that: 1) claims 3, 6, 7, 12, 15, 35, and 44 were invalid as indefinite; 2) claims 3, 6, 7, 12, 15, 35, and 44 were invalid as not enabled; 3) claim 7 was invalid as anticipated; and 4) no asserted claim was infringed. Significantly, the Respondents challenged only one claim, claim 44, for lack of written description support. Judge Luckern found that claim 44 was *not invalid* under § 112, first paragraph, for a failure to provide proper written description support. *Thus, no claim asserted in the ITC litigation was held invalid by Judge Luckern under 35 U.S.C. § 112, first paragraph, for failure to provide adequate written description support.*

On December 4, 1997, the ITC issued its Final Determination, which adopted some, but not all, of Judge Luckern's Initial Determinations. Specifically, the ITC's Final Determination adopted Judge Luckern's claim constructions and findings that the asserted claims were indefinite and not infringed. On the other hand, the ITC did not adopt Judge Luckern's other findings concerning, for example, whether the claims were enabled or whether claim 7 was anticipated. On appeal before the Federal Circuit were only those findings by Judge Luckern that the ITC expressly adopted in its Final Determination. The Federal Circuit's opinion: 1) reversed Judge Luckern's and the ITC's determination that the asserted patents claims were invalid for indefiniteness; 2) vacated Judge Luckern's and the ITC's determination that asserted claim 7 was not infringed; and 3) affirmed Judge Luckern's and the ITC's determination that claims 6 and 44 were not infringed. *See Personalized Media Communications, LLC v. Int'l Trade Comm'n*, 161 F.3d 696, 48 USPQ2d 1880 (Fed. Cir. 1998). As a result of the Federal Circuit opinion, the case was remanded to the ITC. After

the case was remanded to the ITC, PMC withdrew its complaint and the ITC vacated Judge Luckern's Initial Determination with respect to the findings of invalidity for anticipation and lack of enablement. *See In re Certain Digital Satellite Sys. (DSS) Receivers & Components Thereof*, No. 337-TA-392, 2001 WL 535427 (Int'l Trade Comm'n May 13, 1999). Accordingly, the quotes relied upon by the Examiner in the Office action, all of which are from Judge Luckern's discussion of invalidity for lack of enablement, were vacated by the ITC.

As applicants have already noted, with respect to the only claim even challenged under the written description requirement of § 112, Judge Luckern concluded that the claim was *not invalid* on that basis.[3] Regarding the first quote, Judge Luckern's belief that the 1987 specification is "difficult to understand as it is dealing with many possible systems," even if true, is not a proper reason for the Examiner to conclude that none of applicants' claims are supported under § 112. Regarding the second quote, in which Judge Luckern discusses the complainant's identification of written description support for the asserted claims of U.S. Patent No. 5,225,277, what is important is that Judge Luckern did not find that any of the asserted claims were invalid for failure to satisfy the written description requirement of § 112. Finally, the last two quotes identified by the Examiner actually contain statements made by the ITC Staff in opening arguments. The comments advanced by the Staff in the ITC litigation describing "directions to a treasure map" and "ships passing in the night" are attorney arguments advanced during litigation, and such arguments are simply not indicative of applicants' actions before the PTO.

When the Examiner's citations to the ITC record are presented accurately and in their proper substantive and procedural context, the citations do not support the Examiner's position. Indeed, the ITC record is consistent with applicants' position on the written description issue. The statements relied upon by the Examiner are nothing more than dicta concerning a finding by Judge Luckern that

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[3] Additionally, in allowing the claims asserted in the ITC to issue, the PTO understood that those claims were adequately supported under § 112.

was later vacated. Further, even if these findings had not been vacated, the observations by Judge Luckern do not contradict applicants' position that the pending claims are properly supported under § 112, first paragraph.

In Section III, the Examiner rejects all claims under 35 U.S.C. § 112, first paragraph, as containing subject matter that was not sufficiently described in the specification. In making these rejections, however, the Examiner does nothing more than identify specific limitations pending in a given claim and state "it is not clear where the disclosure as originally filed described the recited step/process . . . " There is absolutely no analysis of, reference to, or discussion of any of the teachings found in applicants' specification which relate to the claimed subject matter. Because the Examiner has failed to provide any reason or analysis as to *why* applicants' claims are not sufficiently supported under 35 U.S.C. § 112, first paragraph, the Examiner has failed to meet his burden to sustain such a rejection.

An Examiner has the initial burden of presenting a prima facie case of unpatentability by:

> "[P]resenting evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims." . . . [T]he burden placed on the examiner varies, depending on what the applicant claims. If the applicant claims embodiments of the invention that are completely outside the scope of the specification, then the examiner or Board need only establish this fact to make out a prima facie case. If, on the other hand, the specification contains a description of the claimed invention, albeit not *in ipsis verbis* (in the identical words), then the examiner or Board, in order to meet the burden of proof, must provide reasons why one of ordinary skill in the art would not consider the description sufficient. Once the examiner or Board carries the burden of making out a prima facie case of unpatentability, "the burden of coming forward with evidence shifts to the applicant." . . . [to] show that the invention is adequately described to one skilled in the art.

In re Alton, 76 F.3d 1168, 1175 (Fed. Cir. 1996) (citations omitted).

As the Alton case makes clear the Examiner's burden varies in making a valid rejection under § 112, first paragraph. In the Office action, the Examiner has not even met the most lenient burden described in Alton. The Examiner does not assert that applicants' claims or specific limitations in

applicants' claims are completely outside the scope of the specification; the Examiner simply identifies specific claim limitations and requests "clarification." Accordingly, under the standard set forth in *Alton*, the Examiner has not met his burden to "provide reasons why one of ordinary skill in the art would not consider the description sufficient." *Alton*, 76 F.3d at 1175.

Notwithstanding the Examiner's failure to meet his burden for making a proper rejection of applicants' pending claims under § 112, first paragraph, applicants have provided a chart (attached as Appendix B) that identifies detailed written description support for each and every limitation of the pending claims. Applicants respectfully submit that the illustrative support identified in Appendix B, together with applicants' narrative discussion below, demonstrates that the claimed subject matter is described in the specification in such a way as to reasonably convey to one skilled in the art that applicants had possession of the claimed inventions at the time the 1987 application was filed. Applicants wish to note that the support provided below and in Appendix B is illustrative and the claims may be supportable by other/additional teachings of the 1987 specification. Applicants also wish to note that the claims of the instant application should not be construed to be limited based on the support provided.

The Examiner states that a word search was done and the word error does not occur after page 327 of the specification. The Examiner states that "all/much/most" of applicants cited support for a first and second error correction routine are found after that page. This statement is now moot because the a first and second error correction routines have been amended to recite an "error correction routine" and a "failure handling routine" which are fully supported by the specification. The error correction is supported on at least page 157 of the specification by a forward error correction routine. The failure handling routine is described at at least page 454, lines 10-18 of the specification. The failure handling correction routine fixes problems caused when a failure is discerned. This support is detailed in the discussion below.

In Section III: A2- A20, the Examiner requests clarification for specific portions of the claims. Such clarification is provided below.

1) Claim 5 And Claims Depending Therefrom

Claim 5 is directed to a method of controlling a receiver station. The receiver station includes a receiver, memory operatively connected to the receiver, and at least one processor operatively connected to the memory. In this method, a receiver station receives an information transmission that includes processor instructions and a program. The receiver station performs an error correction routine by processing at least a portion of the information transmission. The receiver station is programmed to perform a failure handling routine in accordance with the processor instructions of the information transmission as corrected in the error correction routine. By processing the information in the information transmission as corrected in the error correction routine, a failure is discerned that evidences at least one of incomplete programming or an incorrect program element in memory. A failure handling routine is executed as a consequence of discerning the failure.

The recited "method of controlling a receiver station" in the preamble and the recited clause "[the method of claim 5] controls the receiver station" is supported in the specification by the disclosure generally of the fact that throughout the specification "stations control the handling, generating, and displaying of programming at the subscriber station." (p. 40, ll. 17-20). The recited controlling is achieved by SPAM messages. A given SPAM message causes a combining of overlays at a receiver station. (p. 452, ll. 26-30) The SPAM message "specifies the identity of the overlay information whose combining it causes and causes a combining only at [a] subscriber station where information exists of the completion of the identified overlay." *Id.* "In example 10, a particular program originating studio transmits the commercial of program unit Q in a network transmission and controls a plurality of intermediate transmission stations each of which controls, in turn, a plurality of subscriber stations that are ultimate receiver stations." Spec. p. 374, l. 32 - p. 375, l. 2.

The recited term "receiver station, said receiver station including a receiver, a memory operatively connected to said receiver, and at least one processor" is supported in the specification by

a subscriber station ("URS") which is as shown in Fig. 7E (p. 480, ll. 14-17) and has a decoder that detects digital signal information embedded in a transmission, renders said information into digital signals that the subscriber station can process, identifies the particular apparatus to which said signals are addressed, and outputs the signals at the subscriber station. (p. 34, ll. 21-28). The decoder is controlled by a controller with a buffer, a microprocessor and, ROM and RAM capacities (p. 36, ll. 32-33; See Figs. 2A).

When a message is received at a subscriber station a three step processing method is carried out. Each of these steps occurs at a different processor which comprise the controller 39. Forward error correction is first. Then protocol conversion is performed. Then any control functions are invoked (p. 156, l. 33 - p. 157, l. 10.; See Fig. 3A).

In Example 10, in the specification, messages transmitted to the subscriber station cause the processors at particularly slow microcomputers to restore efficiency in a method that will be disclosed below. (p. 514, l. 32 - p. 515, l. 2).

Claim 5 recites "receiving an information transmission including processor instructions and a program." Support for this limitation is found in at least two embodiments in the specification.

In the first embodiment, the recited term "information transmission" is supported by SPAM programming transmission (p. 481, ll. 7-9) which includes a specific program-instruction-set message (p. 484, ll. 2-8). The "processor instructions" are supported in the specification by the command segments of the messages contained in the transmission (e.g., headers and execution segments; p. 44, ll. 14-25). The recited "program" is supported by a computer program such as a PROGRAM.EXE file (p. 484, ll. 9-10). In the second embodiment, the recited term "information transmission" is supported by the transmission of a television program such as the commercial of program unit Q. (p. 478, ll. 23-26). The "processor instructions" are supported in the specification by SPAM messages embedded in the transmission of the commercial (p. 481, ll. 7-9; p. 59, ll. 29-33). The recited "program" is a conventional television program such as program unit Q (p. 41, ll. 28-29; p. 478, ll. 23-26) in which is embedded processor instructions. *Id.*

In both embodiments, the conventional programming, the SPAM messages and the program-instruction-set message are all received at the subscriber station (p. 484, ll. 2-10).

Claim 5 recites an "error correction routine" which is supported in the specification by the forward error correction routine mentioned above. Claim 5 further recites "performing an error correction routine by processing at least a portion of said information transmission."

This limitation is supported in the specification by the fact that all messages are detected at the subscriber station (p. 481, ll. 3-9 and e.g., p. 484, 11. 12-15) and that forward error correction is performed on messages detected at the subscriber station (p. 156, l. 33 - p. 157, l. 5; see Fig. 3A which shows that whatever is detected is passed to an error correction routine performed at 39B).

Claim 5 recites that the receiver station is programmed to perform a failure handling routine in accordance with the processor instructions of the information transmission as corrected in the step of performing. This limitation is supported in the specification by the subscriber station loading and executing a PROGRAM.EXE file in a first embodiment and a SPAM message information segment which contains a program instruction set (e.g., PROGRAM.EXE) in a second embodiment. As mentioned above, the messages contained in the SPAM message and the PROGRAM.EXE file have undergone error correction. In either case, instructions are loaded and executed to control the receiver station to perform a failure handling routine as described below (p. 484, ll. 12-18).

Claim 5 recites "discerning a failure evidencing at least one of incomplete programming and an incorrect program element in said memory." The recited "program element" in memory is supported in the specification by an element of a SPAM message such as a header, execution segment, or information segment (p. 60, l. 19-21).

When a transmission is received at a receiver station, two types of failures may be discerned. In a first type of failure, the recited step of discerning a failure evidencing an incorrect program element is supported in the specification by the SPAM-first-precondition register being is loaded with a "program unit identification code" when a SPAM message has been successfully decrypted (p.

226, l. 2-10). If the decryption fails, the SPAM-first-precondition register is *not* loaded with a "program unit identification code." Then, first-condition-test-failed instructions are executed (p. 234, l. 12-19). These instructions cause the processor to stop processing the program element (e.g., the information segment program instruction set or PROGRAM.EXE, p. 484, l. 16-18).

In this first type of failure, the recited "failure handling routine" is supported in the specification by clearing all SPAM memories and waiting for the next message (p. 234, l. 12-29).

When a transmission is received, the aforementioned SPAM message causes an overlay to be created at the receiver station. An overlay combines video or audio information that is to be overlaid in combination with programming (p. 26, ll. 1-13, pp. 463-468). The second type of failure may be evidenced when programming necessary to complete the overlay is not present (e.g., has not been completed) (p. 452, l. 26 - p. 453, l. 2). The recited step of discerning a failure evidencing incomplete programming is supported in the specification, by checking a memory to determine if a given overlay has been processed. If not, then it is deemed incomplete (p. 454, ll. 10-16, p. 453, ll. 15-18).

More specifically, a commence outputting message which follows the program-instruction-set message executes a conditional-overlay-at-205 instruction (e.g., p. 120, l. 24 - p. 121, l. 7). This instruction causes the microcomputer at the subscriber station to process overlays (*Id*). An overlay combines local information at the subscriber station with information transmitted in the programming transmission (*Id*). When a particular complete overlay has been placed in RAM memory, an identifier which identifies the completed overlay is placed at SPAM-second precondition register memory (p. 107, l. 20-33). However, if the identifier has not been so placed when the processor is instructed by the message to overlay, than second-condition-test-failed instructions are performed (p. 235, l. 8-20).

In this second type of failure, preprogrammed second-condition-test-failed instructions cause the microcomputer at the subscriber station to jump over the instructions that complete the incomplete overlay and begin generating a subsequent overlay at subsequent instructions in the

program instruction set (p. 453, ll. 2-24). The second-condition-test-failed instructions causes the processor to interrupt and cease processing of the incomplete overlay (p. 453, l. 24 - p. 454, l. 32). These instructions also cause the processor to the process the next overlay (*Id*). This process allows the receiver station to restore efficient operations (p. 452, ll. 1-4 et seq.).

Claim 5 recites that the discerning of a failure is done by processing the "information received in said information transmission as corrected in said step of discerning a failure." This limitation is supported in the specification by the fact that each message that instructs an overlay identifies the overlay whose output it instructs (p. 452, l. 26 - p. 453, l. 2). For the identifier to be compared to the information at SPAM-first and SPAM-second-precondition register memories which are at controller 39 (p. 159, l. 30 - p. 161, l. 8, especially p. 160, ll. 18-19), it must first be forward error corrected at processor 39B (See Fig. 3A). Thus, the information of the SPAM message is corrected by forward error correction and then the corrected information is the basis for processing the failure handling routine as described above (*Id*). The method described above controls the receiver station in that the instructions described cause the receiver station to carry out the described method.

Applicants respectfully submit that the specification filed in 1987 demonstrates that applicants possessed the invention defined by claim 5, as shown by the specific citations in Appendix B and the general discussion above.

Claims 6-22 depend from claim 5. The support for these claims is based on the support discussed above with respect to claim 5. These claims set forth further features found in Example 7 of the specification. The specific support for the elements set forth in these claims is fully demonstrated in the charts contained in Appendix B and the discussion above.

2) Claim 25

Claim 25 is directed to a method of controlling a receiver station. The receiver station includes a receiver, memory connected to the receiver, and a processor(s) connected to the memory.

In this method, an information transmission, which includes mass medium programming including audio programming, is received. An error correction routine is performed by processing at least a portion of said information transmission. By processing information received in the information transmission as corrected in the step of error correction, the receiver station discerns a failure evidenced by incomplete programming or incorrect mass medium programming element in the memory. When a failure is discerned, the receiver station executes a failure handling routine.

The support discussed above in connection with claim 5 is also applicable to claim 25. In addition, claim 25 recites a "mass medium programming including audio information" rather than "processor instructions and a program." Mass medium programming is supported in the specification by the transmission of the conventional audio and video of program unit Q (p. 478, l. 23 - 26). Information such as SPAM messages are embedded in program unit Q. (p. 481, l. 2 - 9).

Also, in claim 25, a "mass medium programming element" is recited rather than a "program element." A mass medium programming element is supported in the specification by the SPAM messages included in the transmission of the program unit Q (p. 478, l. 23 - 27). The recited "discerning a failure" step is supported as discussed above in connection with claim 5.

Applicants respectfully submit that the specification filed in 1987 demonstrates that applicants possessed the subject matter defined by claim 25, as shown by the specific citations in Appendix B and the general discussion above.

Claim 26 depends from claim 25. The support for these claims is based on the support discussed above with respect to claim 25. The specific support for the elements set forth in these claims is fully demonstrated in the charts contained in Appendix B and the discussion below.

3) Claim 27

Claim 27 is directed to a method of controlling a receiver station. The receiver station includes a receiver, memory connected to the receiver, and a processor(s) connected to the memory. In this method, an information transmission, which includes computer programming which is

capable of programming a receiver station, is received. An error correction routine is performed by processing at least a portion of the computer programming. By processing the corrected computer programming received in the information transmission as corrected in the step of correcting, the receiver station discerns a failure evidenced by incomplete or an incorrect program element in the memory. In accordance with the received computer programming, a failure handling routine is executed.

The support discussed above in connection with claim 5 is also applicable to claim 27. In addition, claim 27 recites "computer programming" rather than "processor instructions and a program." The "computer programming" is supported in the specification by a computer program such as a PROGRAM.EXE file (p. 484, ll. 9-10). Claim 27 also recites "computer programming which is capable of programming said receiver station." This limitation is supported in the specification by the subscriber station loading and executing the information segment of an incoming message; the information segment is the output file PROGRAM.EXE (p. 484, ll. 12-18).

Applicants respectfully submit that the specification filed in 1987 demonstrates that applicants possessed the invention defined by claim 27, as shown by the specific citations in Appendix B and the general discussion above with regard to claim 5.

4) Claim 28

Claim 28 is directed to a method of controlling a receiver station. The receiver station includes a receiver, memory connected to the receiver, and a processor(s) connected to the memory. In this method, an information transmission, which includes information, is received. An error correction routine is performed by processing at least a portion of the information transmission. By processing information received in the information transmission as corrected by the error correction step, the receiver station discerns a failure evidenced by incomplete programming or incorrect program element in the memory. When a failure is discerned, the receiver station selects one of plurality of failure handling routines and executes the selected failure handling routine.

The support discussed above in connection with claim 5 is also applicable to claim 28. In addition, claim 28 recites a "plurality of failure handling routines." The support for this limitation is disclosed in the specification when a second failure is discerned and the failure handling routine is performed a second time by skipping more than one overlay; the receiver determines how many failures have occurred and does failure handling (i.e., skip overlays) appropriate to the number of failures that have occurred (p. 455, l. 34 - p. 456, l. 8). This process could continue a number of times thus resulting in a plurality of second error correction routines.

Applicants respectfully submit that the specification filed in 1987 demonstrates that applicants possessed the invention defined by claim 28, as shown by the specific citations in Appendix B and the general discussion above with regard to claim 5.

5) Claim 29

Claim 29 is directed to a method of controlling a receiver station. The receiver station includes a receiver, memory connected to the receiver, and a processor(s) connected to the memory. In this method, an information transmission, which includes a program, is received. An error correction routine is performed by processing at least a portion of the information transmission. The receiver station discerns a failure evidenced by an incompletion of a function. When a failure is discerned, the receiver station executes a failure handling routine.

The support discussed above in connection with claim 5 is also applicable to claim 29. The recited "discerning a failure evidencing an incompletion of a function" step (e.g., not completing programming, p. 514, l. 32 - p. 515, l. 5) is supported the discussion of the "discerning a failure" step above in connection with claim 5.

Applicants respectfully submit that the specification filed in 1987 demonstrates that applicants possessed the invention defined by claim 29, as shown by the specific citations in Appendix B and the general discussion above with regard to claims 5.

6) Claim 30 And Claims Depending Therefrom

Claim 30 is directed to a method of controlling a receiver station. The receiver station includes a receiver, memory connected to the receiver, and a processor(s) connected to the memory. In this method, an information transmission, which includes processor instructions and a program, is received. The receiver station is programmed to perform a failure handling routine in accordance with the processor instructions. An error correction routine is performed by processing at least a portion of the information transmission. By processing information received in the information transmission as corrected in the error correction step, the receiver station discerns a failure evidenced by incomplete programming or an incorrect program element in the memory. When a failure is discerned, the receiver station executes a failure handling routine. The failure handling routine is performed in accordance with the processor instructions.

The support discussed above in connection with claim 5 is also applicable to claim 30. In addition, claim 30 recites that the "failure handling routine" is recited as being in executed in accordance with said processor instructions. This limitation is supported by the following passage:

> transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to input particular second-condition-test-failed instructions to its associated microcomputer, 205, causing said microcomputer, 205, to [jump to additional instructions] ...

(p. 514, l. 32 - p. 515, l. 4).

Claims 31-33 depend from claim 30. The support for these claims is based on the support discussed above with respect to claim 30. These claims set forth further features found in Example 7 of the specification. The specific support for the elements set forth in these claims is fully demonstrated in the charts contained in Appendix B and the discussion below.

7) Claim 34

Claim 34 is directed to a method of controlling a receiver station. The receiver station includes a receiver, memory connected to the receiver, and a processor(s) connected to the memory. In this method, at least one information transmission, which includes processor instructions and a program, are received. The receiver station is programmed to perform at least one failure handling routine in accordance with the processor instructions. An error correction routine is performed by processing at least one portion of the at least one of the information transmissions. The receiver station discerns a failure evidenced by incomplete programming or an incorrect program element in the memory. When a failure is discerned, the receiver station executes the at least one failure handling routine. The at least one failure handling routine is performed in accordance with the processor instructions

The support discussed above in connection with claim 5 is also applicable to claim 34. However, claim 34 recites "at least one information transmission" rather than an "information transmission." The support for this limitation is disclosed in the specification by the transmission to at least a second intermediate transmission station which is retransmitted to a subscriber station (p. 470, l. 3-12). Claim 34 also recites that at least one "failure handling routine" is recited as being in accordance with said processor instructions. This limitation is supported by the discussion of above in connection with claim 30 and the support for more than one failure handling routine discussed in connection with claim 28.

Applicants respectfully submit that the specification filed in 1987 demonstrates that applicants possessed the invention defined by claim 30, as shown by the specific citations in Appendix B and the general discussion above with regard to claims 5.

Applicants submit that the specific citations in Appendix B and the general discussion above provide the clarification requested by the Examiner in Section III: A2- A20.

III. CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome or rendered moot. Further, all pending claims are patentably distinguishable over the prior art of record, taken in any proper combination. Reconsideration and allowance of the instant application are respectfully requested.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such informalities.

Respectfully submitted,

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Appendix A

Applicants' Marked-Up Claim Language

5. **(Three Times Amended)** A method of controlling a receiver station, said receiver station including a receiver, a memory operatively connected to said receiver, and at least one processor operatively connected to said memory, said method comprising the steps of:

receiving an information transmission including processor instructions and a program;

[programming said receiver station to perform a predetermined secondary error correction routine in accordance with said processor instructions;]

performing [a primary] an error correction routine by processing at least a portion of said information transmission;

[passing information included in said program to said memory;]

programming said receiver station to perform a failure handling routine in accordance with said processor instructions of said information transmission as corrected in said step of performing;

discerning a failure evidencing at least one of [an] incomplete programming and an incorrect program element in said memory by [reprocessing] processing information received in said information transmission as corrected in said step of performing; and

executing said [predetermined secondary error correction] failure handling routine in consequence of said step of discerning a failure;

wherein said method controls said receiver station.

6. **(Three Times Amended)** The method of claim 5, wherein [at least one of said primary error correction routine and said secondary error correction routines] said failure handling routine comprises the step of:

clearing at least a portion of said memory.

7. **(Three Times Amended)** The method of claim 5, further comprising the step of:

[one of] placing [and replacing] data at said memory to [at least one of complete and correct a program element] produce programming in consequence of said step of executing [a predetermined secondary error correction] a failure handling routine.

8. **(Three Times Amended)** The method of claim 5, further comprising the step of:

interrupting a processor in accordance with [at least one of said primary error correction routine and said secondary error correction.] said failure handling routine.

9. **(Amended)** The method of claim 5, wherein said failure handling routine causes said processor to [further comprising the steps of:] select[ing] a [value] code designating an instruction to be executed[;], and jump[ing] to a memory location based on said selected [value] code.

10. **(Amended)** The method of claim [5] 9, wherein said [step of selecting a value] code is selected by [comprises] computing [at least some an address of said memory location] a target number.

11. **(Twice Amended)** The method of claim 5, further comprising the steps of:

storing history-of-efficiency information; and

[performing at least one of the functions of instituting and] restoring functionality of said at least one processor based on said stored history of efficiency information.

12. (Unchanged) The method of claim 5, wherein said step of discerning a failure comprises comparing information stored at a first memory location to information stored at a second memory location.

13. (**Amended**) The method of claim [5]12, wherein at least one of said first memory location and said second memory location [is] comprises a dedicated register at said at least one processor.

14. (**Amended**) The method of claim 5, wherein said [primary] error correction routine includes forward error correction [and said step of discerning a failure is based on information processed in said step of performing primary first error correction].

Please cancel claim 15.

16. (**Three Times Amended**) The method of claim [5] 11, further comprising the step of:

[performing forward error correction information to be at least one of outputted in and outputted with said program before performing said steps of (1) performing a primary error correction routine and (2) discerning a failure.] altering said history-of-efficiency information to reflect said step of discerning a failure.

17. **(Three Times Amended)** The method of claim [5,] 7, wherein said [step of performing a primary error correction routine further comprises:

selecting program material to be at least one of outputted and not outputted at said receiver station.] produced programming comprises video.

18. **(Amended)** The method of claim 5, [further comprising

selecting program material to be one of outputted and not outputted at said receiver station in accordance with said second error correction routine.] wherein said program comprises mass medium programming.

19. **(Amended)** The method of claim 5, wherein said program includes [at least one of a television program, a radio program, a computer program, and some of a combined medium program.] video.

20. **(Amended)** The method of claim [19]5, [further comprising the step of:

selecting at least one of a program instruction set, intermediate generation set, combining synchronizing command, and data to be processed to present combined medium programming.] wherein said program comprises a computer program.

Please cancel claim 21.

22. **(Amended)** The method of claim [21]5, wherein said step of programming said receiver station comprises:

receiving [said at least a portion of said primary error correction routine and said secondary error correction] said failure handling routine from a remote station;

directing said received [at least a portion of said primary error correction routine and said secondary error correction] failure handling routine [from said remote station to at least one of a register and a re-programmable memory operatively connected to said at least one processor; and] to a programmable device; and

storing said [at least some of said primary error correction routine and said secondary error correction] said received failure handling routine at said [at least one of a register and a re-programmable memory operatively connected to said at least one processor.] programmable device.

Please cancel claims 23 and 24.

25. (**Twice Amended**) A method of controlling a receiver station, said receiver station including a receiver, a memory operatively connected to said receiver, and at least one processor operatively connected to said memory, said method comprising the steps of:

receiving an information transmission including mass medium programming including audio programming;

performing a [primary] an error correction routine by processing at least a portion of said information transmission;

[passing said information included in said mass medium programming to said memory;]

discerning a failure evidencing at least one of [an] incomplete programming and an incorrect mass medium programming element in said memory by [reprocessing] processing information received in said information transmission as corrected in said step of performing; and

executing a [predetermined secondary error correction] failure handling routine in consequence of said step of discerning a failure;

wherein said method controls said receiver station.

26. **(Amended)** The method of controlling a receiver station of claim 25, wherein said step of executing a [predetermined secondary error correction] failure handling routine further includes the step of:

at least one of completing, correcting and discarding at least a portion of said mass medium programming including said audio programming.

27. **(Twice Amended)** A method of controlling a receiver station, said receiver station including a receiver, a memory operatively connected to said receiver, and at least one processor operatively connected to said memory, said method comprising the steps of:

receiving an information transmission including computer programming which [programs] is capable of programming said receiver station;

performing [a primary] an error correction routine by processing at least a portion of said computer programming;

[passing information included in said computer programming to said memory;]

discerning a failure evidencing at least one of [an] incomplete programming and an incorrect program element in said memory by [reprocessing] processing said computer programming received in said information transmission as corrected in said step of performing; and

executing [a predetermined secondary error correction] a failure handling routine in accordance with said received computer programming;

wherein said method controls said receiver station.

28. (**Twice Amended**) A method of controlling a receiver station, said receiver station including a receiver, a memory operatively connected to said receiver, and at least one processor operatively connected to said memory, said method comprising the steps of:

receiving an information transmission including a program;

performing [a primary] an error correction routine by processing at least a portion of said information transmission;

[passing information included in said program to said memory;]

discerning a failure evidencing at least one of [an] incomplete programming and an incorrect program element in said memory by [reprocessing] processing information received in said information transmission as corrected in said step of performing;

selecting at least one of a plurality of [predetermined secondary error correction] failure handling routines to execute in consequence of said step of discerning a failure; and

executing said selected at least one of said plurality of [predetermined secondary error correction] failure handling routines;

wherein said method controls said receiver station.

29. (**Twice Amended**) A method of controlling a receiver station, said receiver station including a receiver, a memory operatively connected to said receiver, and at least one processor operatively connected to said memory, said method comprising the steps of:

receiving an information transmission including a program;

performing [a primary] an error correction routine by processing at least a portion of said information transmission;

[passing information included in said program to said memory;]

discerning a failure evidencing an incompletion of a function; and

executing a [predetermined secondary error correction] failure handling routine in consequence of said step of discerning a failure;

wherein said method controls said receiver station.

30. **(Twice Amended)** A method of controlling a receiver station, said receiver station including a receiver, a memory operatively connected to said receiver, and at least one processor operatively connected to said memory, said method comprising the steps of:

receiving an information transmission including processor instructions and a program;

[programming said receiver station to perform at least one error correction routine in accordance with said processor instructions;]

performing [a primary] an error correction routine by processing at least a portion of said information transmission;

[passing said information included in said program to said memory;]

programming said receiver station to perform a failure handling routine in accordance with said processor instructions;

discerning a failure evidencing at least one of [an] incomplete programming and an incorrect program element in said memory by [reprocessing] processing information received in said information transmission as corrected in said step of performing; and

executing [a secondary error correction] a failure handling routine in consequence of said step of discerning a failure;

wherein [at least one of a said primary error correction routine and said secondary error correction] said failure handling routine is performed in accordance with said processor instructions and wherein said method controls said receiver station.

31. **(Amended)** The method of controlling a receiver station of claim 30, wherein said program [is] comprises mass medium programming.

32. **(Unchanged)** The method of controlling a receiver station of claim 30, wherein said program [is] comprises computer programming.

33. **(Amended)** The method of controlling a receiver station of claim 30, [wherein the step of discerning a failure further comprises the step of:

reprocessing information received in said information transmission.] further comprising the steps of:

receiving a portion of a failure handling routine from a remote station;

directing said received portion of said failure handling routine to a programmable device; and

storing said portion of said failure handling routine at said programmable device.

34. **(Twice Amended)** A method of controlling a receiver station, said receiver station including a receiver, a memory operatively connected to said receiver, and at least one processor operatively connected to said memory, said method comprising the steps of:

receiving [at least] one or more information transmissions, each of said information transmissions including processor instructions and a program;

[programming said receiver station to perform at least one error correction routine in accordance with said processor instructions;]

performing [at least one primary] an error correction routine by processing at least one portion of said at least one information transmission;

[passing said information included in said program to said memory;]

programming said receiver station to perform at least one failure handling routine in accordance with said processor instructions;

discerning a failure evidencing at least one of [an] incomplete programming and an incorrect program element in said memory; and

executing [a secondary error correction] said at least one failure handling routine in consequence of said step of discerning a failure;

wherein [at least one of a said primary error correction routine and said secondary error correction routine] said at least one failure handling routine is performed in accordance with said processor instructions and wherein said method controls said receiver station.

Appendix B

Chart Identifying Support for Each Claim in the Specification

5. **(Three Times Amended)** A method of controlling	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
	For example, page 452, lines 26 - 30	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay.
	Page 374, line 32 - page 375, line 2	In example #10, a particular program originating studio transmits the commercial of program unit Q in a network transmission and controls a plurality of intermediate transmission stations each of which controls, in turn, a plurality of subscriber stations that are ultimate receiver stations.
a receiver station,	Page 480, lines 14 - 17 See Fig. 7E.	In so doing, receiving said message causes matrix switch, 258, to interconnect the apparatus of said station in the fashion of Fig. 7E.
	Page 34, lines 21 - 28 Fig. 2A is referenced in Fig. 7E.	Fig. 2A shows a TV signal decoder that detects signal information embedded in an inputted television frequency, renders said information into digital signals that subscriber station apparatus can process, identifies the particular apparatus to which said signals are addressed, and outputs said signals to said apparatus. Decoder, 203, in Fig. 1 is one such TV signal decoder; decoder, 30, in Fig. 2 is another.

	Page 36, lines 32 - 33 See Fig. 2A.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
	Page 156, line 33 - page 157, line 10. See Fig. 3A.	Fig. 3A shows one such preferred controller, 39. One aspect of the preferred embodiment of controller, 39, is a series of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting functions of controller, 39. Buffer, 39C, and processor, 39D, are the second buffer and processor and perform protocol conversion functions. Buffer, 39E, and control processor, 39J, are the third buffer and processor. All controlled functions invoked at controller, 39, by received SPAM signals are invoked at control processor, 39J.
	More specifically, page 514, line 32 - page 515, line 2.	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above.
said receiver station including a receiver,	Page 34, lines 18 - 20	Signal decoder apparatus such as decoder, 203, in Fig. 1 and decoders, 30 and 40, in Fig. 2 are basic in the unified system of this invention.
	For example, page 35, line 7	... a standard line receiver, 33, well known in the art.
a memory operatively connected to said receiver, and at least	Page 36, lines 32 – 33. See Figs. 2A-2C.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM

one processor operatively connected to said memory, said method comprising the steps of:		capacities.
	Also pertinent, page 19, line 6 - page 20, line 8	Fig. 1 shows a video/computer combined medium subscriber station. Via conventional antenna, the station receives a conventional television broadcast transmission at television tuner, 215. The Model CV510 Electronic TV Tuner of the Zenith Radio Corporation of Chicago, Illinois, which is a component of the Zenith Video Hi-Tech Component TV system, is one such tuner. This tuner outputs conventional audio and composite video transmissions. The audio transmission is inputted to TV monitor, 202M. The video transmission is inputted to video transmission divider, 4, which is a conventional divider that splits the transmission into two paths. One is inputted continuously to TV signal decoder, 203, and the other to microcomputer, 205. TV signal decoder, 203, which is described more fully below, has capacity for receiving a composite video transmission; detecting digital information embedded therein; correcting errors in the received information by means of forward error checking techniques, well known in the art; converting the received information, as may be required, by means of input protocol techniques, well known in the art, into digital signals that microcomputer, 205, can receive and process and that can control the operation of microcomputer, 205; and transferring said signals to microcomputer, 205. Microcomputer, 205, is a conventional microcomputer system with disk drives that is adapted to have capacity for receiving signals from decoder, 203; for generating computer

		graphic information; for receiving a composite video transmission; for combining said graphic information onto the video information of said transmission by graphic overlay techniques, well known in the art; and for outputting the resulting combined information to a TV monitor, 202M, in a composite video transmission. One such system is the IBM Personal Computer of International Business Machines Corporation of Armonk, New York with an IBM Asynchronous Communications Adapter installed in one expansion slot and a PC-MicroKey Model 1300 System with Techmar Graphics Master Card, as supplied together by Video Associates Labs of Austin, Texas, installed in two other slots.
receiving an information transmission including	Page 484, lines 2 – 8 (emphasis added)	... causing each intermediate transmission station, including the station of Fig. 6 ... to transmit its specific program-instruction-set message (#10), as described above. Receiving the specific ***program-instruction-set message (#10)*** of its intermediate transmission station causes ...
	Page 385, lines 9 – 34 (emphasis added)	... causes each of said computers, 73, to generate a second outbound SPAM message that includes information of the program instruction set at its program- set-to-transmit RAM memory and to cause said message to be transmitted to its field distribution system, 93. (Hereinafter, the second outbound SPAM message of any given one of said SPAM computers, 73, is called a ***"program- instruction-set message (#10)"***, ...) ... Then, automatically, each of said computers, 73, selects and transmits to the generator, 82, of its station, information of ***a "01" header;*** information of ***a particular SPAM execution segment*** that is

		addressed to URS microcomputers, 205; its retained meter-monitor information; any required padding bits; complete information of the program instruction set that is at its program-set-to transmit RAM memory; and information of a SPAM end of file signal. Said selected and transmitted information that each of said computers, 73, transmits is complete information of the particular ***program-instruction-set message (#10)*** of said computer, 73.
	Page 382, lines 2 - 5	... computers, 73, each to load the information of said files, PROGRAM.EXE and DATA_OF.ITS, at particular program-set-to- transmit and data-set-to-transmit RAM memories of computer, 73, ...
processor instructions	Page 15, lines 7 - 9	In the present invention, particular signal processing apparatus (hereinafter called the "signal processor") detect signals and, in accordance with instructions in the signals ...
	Page 44, lines 14 - 25	A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions. A command is always constituted of at least ***a header and an execution segment.*** With respect to any given command, its execution segment contains information that specifies the apparatus that said command addresses and specifies a particular function or functions that said command causes said apparatus to perform. (Hereinafter, functions that execution segment information causes subscriber station apparatus to perform are called "controlled functions.")
	Page 45, line 10 *et seq.*	... commands are identified by one of three binary headers:

and a program;	Page 484, lines 9 - 10	... the PROGRAM.EXE information in said message ...
performing an error correction routine by processing at least a portion of said information transmission;	Page 484, lines 12 - 15	... receiving the program- instruction-set message (#10) ... causes decoder, 203, to ...
	Page 480, ll. 14-17	In so doing, receiving said message causes matrix switch, 258, to interconnect the apparatus of said station in the fashion of Fig. 7E.
	Page 34, ll. 21-28	Fig. 2A shows a TV signal decoder that detects signal information embedded in an inputted television frequency, renders said information into digital signals that subscriber station apparatus can process, identifies the particular apparatus to which said signals are addressed, and outputs said signals to said apparatus. Decoder, 203, in Fig. 1 is one such TV signal decoder; decoder, 30, in Fig. 2 is another.
	Page 36, ll. 32-33	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
	Page 156, line 33 - page 157, line 5. See Figs. 2A and 3A.	Fig. 3A shows one such preferred controller, 39. One aspect of the preferred embodiment of controller, 39, is a series of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting functions of controller, 39.
programming said receiver station to perform	On the one hand, page 484, lines 12 – 18 (emphasis added)	At the station of Figs. 7 and 7F, receiving the program- instruction-set message (#10) transmitted by the intermediate

		transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load ... at microcomputer, 205, the information segment of said message (which is the ***program instruction set*** of Q.1 and is the output file, PROGRAM.EXE, of said station).
	On the other hand, page 120, line 23	... preprogrammed conditional-overlay-at-205 instructions.
a failure handling routine	On the one hand, page 453, lines 2 – 24 (emphasis added)	Finally, in order to cause microcomputers, 205, that fall behind to catch up, a particular fashion exists in the preferred embodiment for restoring efficient operations. Microcomputers, 205, that fall behind are caused to jump over and avoid executing instructions that control the generating of overlay information (such as Fig. 1A) whose overlay time (that is, combining time) has passed. In a fashion well known in the art, selected so-called "lines of code" of ***program instruction sets*** are preprogrammed with label information that identifies each one of said line, and the instructions of said set periodically compare preprogrammed information of said set to information at particular overlay- target RAM memory in order to control efficient operation in a fashion described more fully below. When a combining fails to occur at any given station because information of the completion of an identified overlay does not exist at said station, the controller, 203, of said station automatically causes the microcomputer, 205, to so-called "jump", in a jump fashion well known in the art, to that selected one of said lines of code where the instructions of said program instruction set commence causing the generation of the information of that particular overlay that is next to be combined.

	Page 454, lines 10 - 18	At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-205 instructions. Executing said second-condition-test-failed instructions causes ...
	On the other hand, Page 234, lines 12-29	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory--including all stations that are preprogrammed with decryption key information of J but not with decryption key information of Z--particular first-condition-test-failed instructions of said conditional- overlay-at-205 instructions cause the control processors, 39J, of said stations to enter "0" at each of the aforementioned SPAM-Flag-first-condition-failed and SPAM- Flag-do-not-meter register memories, which memories are each normally "1"; to cause all SPAM information at the main and video RAMs of the microcomputers, 205, of said stations to be cleared; and to complete all conditional-overlay-at-205 instructions and, in so doing, to complete all controlled functions invoked by said second message at the secondary control level.)
in accordance with said processor instructions of said information transmission as corrected in said step of performing;	Page 15, lines 7 - 9	In the present invention, particular signal processing apparatus (hereinafter called the "signal processor") detect signals and, in accordance with instructions in the signals ...

	More specifically, page 452, lines 26 - 30	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay.
	For example, page 514, line 32 - page 515, line 2	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes ...
discerning a failure	Page 452, line 26 - page 453, line 2	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay. For example, receiving the second message of the "Wall Street Week" program causes the combining of Fig. 1A information and Fig. 1B information only at stations where information at the aforementioned SPAM-first-precondition and SPAM-second-precondition register memories matches selected information of the meter-monitor segment of said message.
	More specifically, page 454, lines 10 - 16	At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-205 instructions.
	More specifically,	(At those subscriber stations where

	page 234, lines 12 - 19	the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory ... particular first- condition-test-failed instructions of said conditional-overlay-at-205 instructions cause ...
	For example, page 514, line 32 - page 515, line 5	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to input particular second-condition-test-failed instructions to its associated microcomputer, 205, causing said microcomputer, 205, to ...
evidencing at least one of incomplete programming	Page 453, lines 15 - 17	... fails to occur at any given station because information of the completion of an identified overlay does not exist ...
	Page 454, lines 11 - 12	... stations that have not completed generating at RAM the information of said first overlay ...
and an incorrect	Page 234, lines 12 - 19	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory--including all stations that are preprogrammed with decryption key information of J but not with decryption key information of Z--particular first-condition-test-failed instructions of said conditional- overlay-at-205 instructions cause ...
	For example, page 226, lines 2 - 10	... only at those subscriber stations where the encrypted information of the first

		message has been decrypted, causing the apparatus of said stations to load and execute program instruction set information at the microcomputers, 205. Only at said stations does "program unit identification code" information of said "Wall Street Week" program exist at the SPAM-first- precondition register memories of the control processors, 39J.
program element in said memory	Page 41, lines 20 - 25	The information of SPAM signals includes data, computer program instructions, and commands. ... Commands ... often execute computer programs or control steps in programs already in process.
	Page 60, lines 19 - 21	SPAM messages are composed of elements--headers, execution segments, meter-monitor segments, and information segments ...
	Page 36, lines 32 – 33. See Fig. 3A.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
by processing information received in said information transmission as corrected in said step of performing; and	Page 157, lines 20 – 24 (emphasis added). See Fig. 3A.	***Control processor, 39J,*** can invoke and process the controlled function of a first signal word while ... processor, 39B, corrects the information of a third signal word.
	Page 160, lines 3 – 30 (emphasis added)	The register memories of ***control processor, 39J,*** include ... ***SPAM-first-precondition, SPAM-second-precondition,*** ... and SPAM-address-of-next-instruction-upon- secondary-interrupt register memories whose functions are described below; and a plurality of working register memories that include first-working and second-working register memories.
	Page 159 line 30 - p.	Control processor, 39J, has capacity

	160 line 19, especially page 160, lines 18-19	for computing information and processing all control information necessary for controlling all apparatus of decoder, 203 (or such other decoder as the controller of a given control processor, 39J, may be installed in). In keeping with the function of control processor, 39J, as the processor at which all controlled functions of controller, 39, are invoked, all aforementioned particular register memories of controller, 39, are located at control processor, 39J. The register memories of control processor, 39J, include (but are not limited to) particular SPAM-input-signal register memory whose length in bit locations is sufficient to contain the longest possible instance of SPAM command information with associated padding bits; ... the aforementioned SPAM-length-info, SPAM-mm-format, SPAM-first-precondition, SPAM-second- precondition
executing said failure handling routine in consequence of said step of discerning a failure;	Page 453, lines 15 - 24	When a combining fails to occur at any given station because information of the completion of an identified overlay does not exist at said station, the controller, 203, of said station automatically causes the microcomputer, 205, to so-called "jump", in a jump fashion well known in the art, to that selected one of said lines of code where the instructions of said program instruction set commence causing the generation of the information of that particular overlay that is next to be combined.
	Page 234, lines 12 - 34	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first-precondition register memory ... particular first- condition-test-failed instructions of said conditional- overlay-at-205 instructions cause the control

		processors, 39J, of said stations to ... complete all conditional-overlay-at-205 instructions and, in so doing, to complete all controlled functions invoked by said second message at the secondary control level.) So resulting in a match, under control of the conditional-overlay-at-205 instructions at the station of Fig. 3, causes control processor, 39J, then, to execute the aforementioned locate-overlay-number instructions and locate the overlay number field in the meter-monitor information of said second message in the fashion described above ...
wherein said method controls said receiver station.	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
	For example, page 514, line 32 - page 515, line 2	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes ...

6. **(Three Times Amended)** The method of claim 5, wherein said failure handling routine comprises the step of: clearing at least a portion of said memory.	Page 514, line 32 - page 516, line 13 (emphasis added)	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to input particular second-condition-test-failed instructions to its associated

		microcomputer, 205, causing said microcomputer, 205, to jump to and commence processing additional instructions of its received program instruction set of Q.1 rather than to commence outputting locally generated combined medium programming. For example, receiving said 1st commence-outputting message (#10) (or (#9)) causes at least one decoder, 203, of at least one station to input the aforementioned second-condition-test-failed instructions to a microcomputer, 205, causing at least one microcomputer, 205, to jump to and execute the instructions caused to be executed by the aforementioned clear-and-continue instructions described above. Automatically, said microcomputer, 205, ceases its current function; stores particular information at particular instruction-at-which-to- resume memory that identifies the location of the particular instruction at which to resume said function; executes the aforementioned when-interrupted portion of said program instruction set of Q.1 [or of Q in the case of example #9]; and determines, under control of the instructions of said portion, that said second-condition-test-failed instructions constitute the first instance of video overlay second- condition-test-failed instructions that microcomputer, 205, has received while under control of said program instruction set of Q.1 [or of Q]. So determining causes said microcomputer, 205, to jump to the aforementioned first- clear-and-continue address of the instructions of said program instruction set of Q.1 [or of Q] and to commence executing first-clear-and-continue instructions at said address. Automatically, said microcomputer, 205, *clears video RAM;* sets the background color of video RAM to transparent black; determines that 1st working memory of said microcomputer, 205, holds particular

		quadrant information; and causes selected binary image information of said number a telephone number to be placed at bit locations that produce video image information in the lower middle portion of a video screen. Automatically, said microcomputer, 205, places information at particular Flag-interrupt register memory which information causes said microcomputer, 205, subsequently to jump over and not reexecute said first-clear- and-continue instructions. Then automatically, said microcomputer, 205, resumes executing instructions of said program instruction set of Q.1 [or of Q] at the location identified by the information at said instruction-at-which- to-resume memory.)
	Page 453, lines 2 - 4	Finally, in order to cause microcomputers, 205, that fall behind to catch up, a particular fashion exists in the preferred embodiment for restoring efficient operations.

7. **(Three Times Amended)** The method of claim 5, further comprising the step of: placing data at said memory to produce programming in consequence of said step of executing a failure handling routine.	Page 514, line 32 - page 516, line 5 (emphasis added)	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to input particular second-condition-test-failed instructions to its associated microcomputer, 205, causing said microcomputer, 205, to jump to and commence processing additional instructions of its received program instruction set of Q.1 rather than to commence outputting locally generated combined medium programming. For

		example, receiving said 1st commence-outputting message (#10) (or (#9)) causes at least one decoder, 203, of at least one station to input the aforementioned second-condition-test-failed instructions to a microcomputer, 205, causing at least one microcomputer, 205, to jump to and execute the instructions caused to be executed by the aforementioned clear-and-continue instructions described above. Automatically, said microcomputer, 205, ceases its current function; stores particular information at particular instruction-at-which-to- resume memory that identifies the location of the particular instruction at which to resume said function; executes the aforementioned when-interrupted portion of said program instruction set of Q.1 [or of Q in the case of example #9]; and determines, under control of the instructions of said portion, that said second-condition-test-failed instructions constitute the first instance of video overlay second- condition-test-failed instructions that microcomputer, 205, has received while under control of said program instruction set of Q.1 [or of Q]. So determining causes said microcomputer, 205, to jump to the aforementioned first- clear-and-continue address of the instructions of said program instruction set of Q.1 [or of Q] and to commence executing first-clear-and-continue instructions at said address. Automatically, *said microcomputer, 205,* clears video RAM; sets the background color of video RAM to transparent black; determines that 1st working memory of said microcomputer, 205, holds particular quadrant information; and *causes selected binary image information of* said number *a telephone number to be placed at bit locations that produce video image information in the lower middle portion of a video screen.*

8. (**Three Times Amended**) The method of claim 5, further comprising the step of: interrupting a processor in accordance with said failure handling routine.	Page 453, line 2 - page 454, line 20	Finally, in order to cause microcomputers, 205, that fall behind to catch up, a particular fashion exists in the preferred embodiment for restoring efficient operations. ... At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-205 instructions. Executing said second-condition-test-failed instructions causes each of said controllers, 39, to compute a particular overlay-target number; to interrupt the operation of the CPU of the microcomputer, 205, of its station; ...

9. (**Amended**) The method of claim 5, wherein said failure handling routine causes said processor to select a code designating an instruction to be executed, and	Page 453, lines 15 - 24	When a combining fails to occur at any given station because information of the completion of an identified overlay does not exist at said station, the controller, 203, of said station automatically causes the microcomputer, 205, to ... to that selected one of said lines of code where the instructions of said program instruction set commence causing the generation of the information of that particular overlay that is next to be combined.
jump to a memory location based on said selected code.	Page 453, lines 15 - 24	When a combining fails to occur at any given station because information of the completion of an identified overlay does not exist at said station, the controller, 203, of said station automatically causes the microcomputer, 205, to so-called "jump", in a jump fashion well known in the art, to that selected one of said lines of code where the instructions of said

		program instruction set commence causing the generation of the information of that particular overlay that is next to be combined.

10. (**Amended**) The method of claim 9, wherein said code is selected by computing a target number.	Page 454, line 32 - page 456, line 26 (emphasis added)	The particular overlay-target number that any given controller, 39, calculates, under control of said second- condition-test-failed instructions, is a function of the overlay number information of the SPAM message that invokes said conditional-overlay-at-205 instructions and is also a function of the history of the efficiency of the operation of the microcomputer, 205, of the subscriber station of said controller, 39, at the time when said instructions are invoked. In the case the second message of the "Wall Street Week" example, the overlay that said message causes to be combined is the first overlay generated under control of the program instruction set that generates said overlay. Accordingly, the information recorded, in a predetermined fashion, at particular history-of-efficiency memory at each controller, 39, of a decoder, 203, of said other stations (that have not completed generating the information of said first overlay at the time of receiving said second message) is "00000000" and indicates that said microcomputer, 205, has not failed to generate any overlay, generated under control of said set, on time. Thus when receiving said second message at said other stations causes the execution of said second-condition-test-failed instructions, said instructions cause said controllers, 39, to increment by one the overlay number information of said message, thereby generating overlay-target information of "00000010"; to cause the microcomputers, 205, of said stations to place information of said "00000010" at said overlay-target RAM memory; to

		cause said microcomputers, 205, to jump to and continue executing the instructions of said program instruction set at the instruction at the particular preprogrammed "offset address" of the particular line of code of said set that is identified by the particular label associated, in a predetermined fashion, with said "00000010"; and to increment by one the information at said history-of-efficiency memory, thereby generating history-of-efficiency information of "00000001" which indicates that said microcomputer, 205, has failed to generate one overlay, generated under control of said set, on time. Thereafter, whenever receiving a SPAM message of said "Wall Street Week" program causes a controller, 39, of said other stations to execute said second-condition-test-failed instructions, said instructions cause said controller, 39, to ***compute its overlay-target number*** by incrementing the overlay number information of said message by more than one and to cause the microcomputer, 205, of its station to restore efficiency by skipping over instructions that cause the generation of more than one overlay (including one or more overlays whose overlay time has not yet come). As said microcomputer, 205, generates the information of the overlay that is identified by said overlay-target number, the instructions of said set cause said microcomputer, 205, in a predetermined fashion that involves comparing preprogrammed particular overlay-being-generated information of said set to information at said overlay-target RAM memory, to identify particular instructions of said set that control just the generation of said one or more overlays whose overlay time has not yet come and to jump over and avoid executing said instructions, thereby executing only those instructions that control generation of information of

		said identified overlay (or of overlays whose overlay time follows the overlay time of said identified overlay). In so doing, said microcomputer, 205, can skip over and avoid executing selected instructions whose overlay time has not passed in order to catch up and recommence combining at an overlay time that is after the overlay time of the overlay or overlays whose generation is controlled by said selected instructions.

11. **(Twice Amended)** The method of claim 5, further comprising the steps of: storing history-of-efficiency information; and	Page 455, lines 9 - 16	Accordingly, the information recorded, in a predetermined fashion, at particular history-of-efficiency memory at each controller, 39, of a decoder, 203, of said other stations (that have not completed generating the information of said first overlay at the time of receiving said second message) is "00000000" and indicates that said microcomputer, 205, has not failed to generate any overlay, generated under control of said set, on time.
	Page 455, lines 29 - 34	... and to increment by one the information at said history-of-efficiency memory, thereby generating history-of-efficiency information of "00000001" which indicates that said microcomputer, 205, has failed to generate one overlay, generated under control of said set, on time.
restoring functionality of said at least one processor based on said stored history of efficiency information.	Page 454, line 32 - page 456, line 26 (emphasis added)	The particular overlay-target number that any given controller, 39, calculates, under control of said second- condition-test-failed instructions, is a function of the overlay number information of the SPAM message that invokes said conditional-overlay-at-205 instructions and is also a function of the history of the efficiency of the operation of the microcomputer, 205, of the subscriber station of said controller,

		39, at the time when said instructions are invoked. In the case the second message of the "Wall Street Week" example, the overlay that said message causes to be combined is the first overlay generated under control of the program instruction set that generates said overlay. Accordingly, the information recorded, in a predetermined fashion, at particular history-of-efficiency memory at each controller, 39, of a decoder, 203, of said other stations (that have not completed generating the information of said first overlay at the time of receiving said second message) is "00000000" and indicates that said microcomputer, 205, has not failed to generate any overlay, generated under control of said set, on time. Thus when receiving said second message at said other stations causes the execution of said second-condition-test-failed instructions, said instructions cause said controllers, 39, to increment by one the overlay number information of said message, thereby generating overlay-target information of "00000010"; to cause the microcomputers, 205, of said stations to place information of said "00000010" at said overlay-target RAM memory; to cause said microcomputers, 205, to jump to and continue executing the instructions of said program instruction set at the instruction at the particular preprogrammed "offset address" of the particular line of code of said set that is identified by the particular label associated, in a predetermined fashion, with said "00000010"; and to increment by one the information at said history-of-efficiency memory, thereby generating history-of-efficiency information of "00000001" which indicates that said microcomputer, 205, has failed to generate one overlay, generated under control of said set, on time. Thereafter, whenever receiving a SPAM message of said "Wall

		Street Week" program causes a controller, 39, of said other stations to execute said second-condition-test-failed instructions, said instructions cause said controller, 39, to compute its overlay-target number by incrementing the overlay number information of said message by more than one and to cause the microcomputer, 205, of its station to *restore efficiency* by skipping over instructions that cause the generation of more than one overlay (including one or more overlays whose overlay time has not yet come). As said microcomputer, 205, generates the information of the overlay that is identified by said overlay-target number, the instructions of said set cause said microcomputer, 205, in a predetermined fashion that involves comparing preprogrammed particular overlay-being-generated information of said set to information at said overlay-target RAM memory, to identify particular instructions of said set that control just the generation of said one or more overlays whose overlay time has not yet come and to jump over and avoid executing said instructions, thereby executing only those instructions that control generation of information of said identified overlay (or of overlays whose overlay time follows the overlay time of said identified overlay). In so doing, said microcomputer, 205, can skip over and avoid executing selected instructions whose overlay time has not passed in order to catch up and recommence combining at an overlay time that is after the overlay time of the overlay or overlays whose generation is controlled by said selected instructions.

12. (Unchanged) The method of claim 5, wherein said step of	Page 453, line 8 - page 454, line 16	In a fashion well known in the art, selected so-called "lines of code" of program instruction sets are

discerning a failure comprises comparing information stored at a first memory location to information stored at a second memory location.		preprogrammed with label information that identifies each one of said line, and the instructions of said set periodically compare preprogrammed information of said set to information at particular overlay- target RAM memory in order to control efficient operation in a fashion described more fully below. When a combining fails to occur at any given station because information of the completion of an identified overlay does not exist at said station, the controller, 203, of said station automatically causes the microcomputer, 205, to so-called "jump", in a jump fashion well known in the art, to that selected one of said lines of code where the instructions of said program instruction set commence causing the generation of the information of that particular overlay that is next to be combined. For example, at the start of the "Wall Street Week" example, information of "00000000" exists at the SPAM-second-precondition register memories of the decoders, 203, of every subscriber station. The overlay of Fig. 1A is the first overlay of the "Wall Street Week" program, and the information of the meter-monitor field of the second message of said example identifies said overlay with binary information of "00000001". The next overlay of said program, which is the second overlay, is identified with information of "00000010". Receiving said second message causes the decoders, 203, at each subscriber station to compare information at said SPAM-second-precondition register memories to the "00000001" information of the overlay number field of said message. At those stations that have completed generating at RAM the information of said first overlay (eg., Fig. 1A), the instructions of the program instruction set of said example have caused information of "00000001" to be placed at said SPAM-second-

		precondition memories. At said stations, matches result and cause the combining of locally generated overlay information (eg., Fig. 1A) with the transmitted Fig. 1B information and cause the display of combined medium information (eg., Fig. 1C). At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-205 instructions.

13. (**Amended**) The method of claim 12, wherein at least one of said first memory location and said second memory location comprises a dedicated register at said at least one processor.	Page 453, line 33 - page 454, line 16 (emphasis added)	Receiving said second message causes the decoders, 203, at each subscriber station to compare information at said *SPAM-second-precondition register memories* to the "00000001" information of the overlay number field of said message. At those stations that have completed generating at RAM the information of said first overlay (eg., Fig. 1A), the instructions of the program instruction set of said example have caused information of "00000001" to be placed at said SPAM-second-precondition memories. At said stations, matches result and cause the combining of locally generated overlay information (eg., Fig. 1A) with the transmitted Fig. 1B information and cause the display of combined medium information (eg., Fig. 1C). At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-

		205 instructions.
	Page 156, line 33. See Fig. 3A.	Fig. 3A shows one such preferred controller, 39.
	Page 160, lines 3 – 33 (emphasis added)	39, are located at control processor, 39J. The register memories of control processor, 39J, include (but are not limited to) particular SPAM-input-signal register memory whose length in bit locations is sufficient to contain the longest possible instance of SPAM command information with associated padding bits; the aforementioned SPAM-header and SPAM-exec register memories; particular SPAM-Flag-monitor- info, SPAM-Flag-at-secondary-control-level, SPAM-Flag-executing-secondary-command, SPAM-Flag-secondary-level- incomplete, SPAM-Flag-primary-level-2nd-step-incomplete, SPAM-Flag-primary-level-3rd-step-incomplete, SPAM-Flag- secondary-level-2nd-step-incomplete, SPAM-Flag-secondary- level-3rd-step-incomplete, SPAM-Flag-first-condition-failed, SPAM-Flag-second-condition-failed, SPAM-Flag-do-not-meter, and SPAM-Flag-working register memories each of which are one bit location in length; the aforementioned SPAM-length-info, SPAM-mm-format, ***SPAM-first-precondition, SPAM-second-precondition,*** SPAM-last-01-header-exec register memories; particular SPAM-decryption-mark, SPAM-primary-input-source, SPAM-secondary-input-source, SPAM-next-primary-instruction- address, SPAM-next-secondary-instruction-address, SPAM- executing-secondary-command, SPAM-last-secondary-01-header- exec, SPAM-address-of-next-instruction-upon-primary- interrupt, and SPAM-address-of-next-instruction-upon-secondary-interrupt ***register memories*** whose functions are described below; and a plurality of working register memories

		that include first-working and second-working register memories. (With the exception of the memories whose names include the word "working," all the aforementioned register memories are dedicated strictly to the functions described below and are not used for any other functions.)

14. (**Amended**) The method of claim 5, wherein said error correction routine includes forward error correction.	Page 156, line 33 - page 157, line 5	Fig. 3A shows one such preferred controller, 39. ... Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting functions of controller, 39.

16. (**Three Times Amended**) The method of claim 11, further comprising the step of: altering said history-of-efficiency information to reflect said step of discerning a failure.	Page 455, lines 5 - 34	In the case the second message of the "Wall Street Week" example, the overlay that said message causes to be combined is the first overlay generated under control of the program instruction set that generates said overlay. Accordingly, the information recorded, in a predetermined fashion, at particular history-of-efficiency memory at each controller, 39, of a decoder, 203, of said other stations (that have not completed generating the information of said first overlay at the time of receiving said second message) is "00000000" and indicates that said microcomputer, 205, has not failed to generate any overlay, generated under control of said set, on time. Thus when receiving said second message at said other stations causes the execution of said second-condition-test-failed instructions, said instructions cause said controllers, 39, to increment by one the overlay number information of said message, thereby generating overlay-target information of "00000010"; to cause the microcomputers, 205, of said stations to

		place information of said "00000010" at said overlay-target RAM memory; to cause said microcomputers, 205, to jump to and continue executing the instructions of said program instruction set at the instruction at the particular preprogrammed "offset address" of the particular line of code of said set that is identified by the particular label associated, in a predetermined fashion, with said "00000010"; and to increment by one the information at said history-of-efficiency memory, thereby generating history-of-efficiency information of "00000001" which indicates that said microcomputer, 205, has failed to generate one overlay, generated under control of said set, on time.

17. (**Three Times Amended**) The method of claim 7, wherein said produced programming comprises video.	Page 515, line 33 - page 516, line 5	Automatically, said microcomputer, 205, clears video RAM; sets the background color of video RAM to transparent black; determines that 1st working memory of said microcomputer, 205, holds particular quadrant information; and causes selected binary image information of said number a telephone number to be placed at bit locations that produce video image information in the lower middle portion of a video screen.

18. (**Amended**) The method of claim 5, wherein said program includes mass medium programming.	Page 453, line 27 - page 454, line 16	The overlay of Fig. 1A is the first overlay of the "Wall Street Week" program, and the information of the meter-monitor field of the second message of said example identifies said overlay with binary information of "00000001". The next overlay of said program, which is the second overlay, is identified with information of "00000010". Receiving said second message causes the decoders, 203, at each subscriber station to compare

		information at said SPAM-second-precondition register memories to the "00000001" information of the overlay number field of said message. At those stations that have completed generating at RAM the information of said first overlay (eg., Fig. 1A), the instructions of the program instruction set of said example have caused information of "00000001" to be placed at said SPAM-second-precondition memories. At said stations, matches result and cause the combining of locally generated overlay information (eg., Fig. 1A) with the transmitted Fig. 1B information and cause the display of combined medium information (eg., Fig. 1C). At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-205 instructions.
	Page 1, lines 27 - 28	But television, radio, and broadcast print are only mass media.
	Page 20, lines 21 - 26	In the example, the subscriber station of Fig. 1 is in New York City and is tuned to the conventional broadcast television transmission frequency of channel 13 at 8:30 PM on a Friday evening when the broadcast station of said frequency, WNET, commences transmitting a television program about stock market investing, "Wall Street Week." Said WNET

19. (**Amended**) The method of claim 5, wherein said program	Page 453, line 27 - page 454, line 16	of every subscriber station. The overlay of Fig. 1A is the first overlay of the "Wall Street Week" program, and the

includes video.		information of the meter-monitor field of the second message of said example identifies said overlay with binary information of "00000001". The next overlay of said program, which is the second overlay, is identified with information of "00000010". Receiving said second message causes the decoders, 203, at each subscriber station to compare information at said SPAM-second-precondition register memories to the "00000001" information of the overlay number field of said message. At those stations that have completed generating at RAM the information of said first overlay (eg., Fig. 1A), the instructions of the program instruction set of said example have caused information of "00000001" to be placed at said SPAM-second-precondition memories. At said stations, matches result and cause the combining of locally generated overlay information (eg., Fig. 1A) with the transmitted Fig. 1B information and cause the display of combined medium information (eg., Fig. 1C). At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-205 instructions. Executing said second-condition-test-failed instructions
	Page 20, lines 21 - 26	In the example, the subscriber station of Fig. 1 is in New York City and is tuned to the conventional broadcast television transmission frequency of channel 13 at 8:30 PM on a Friday evening when the broadcast station of said frequency, WNET, commences transmitting a television program about stock market investing, "Wall Street Week."

20. (**Amended**) The method of claim 5, wherein said program comprises a computer program.	Please see the support for the first embodiment of claim 5.	

22. (**Amended**) The method of claim 5, wherein said step of programming said receiver station comprises: receiving a failure handling routine from a remote station; directing said received failure handling routine to a programmable device; and storing said received failure handling routine at said programmable device.	Page 23, line 35 - page 24, line 21	Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series. Microcomputer, 205, evaluates the initial signal word or words which instruct it to load at RAM (from the input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions that follows said word or words just as the information of a file named FILE.EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the disk drive of said disk inputs) and run were the command "FILE" entered from the console keyboard to the system level of the installed disk operating system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.") In a fashion well known in the art, microcomputer, 205, loads the received binary information of said set at a designated place in RAM until, in a predetermined fashion, it detects the end of said set, and it executes said set as an assembled, machine language program in a fashion well known in the art.

25. (**Twice Amended**) A	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that

method of controlling		originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
	For example, page 452, lines 26 - 30	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay.
	Page 374, line 32 - page 375, line 2	In example #10, a particular program originating studio transmits the commercial of program unit Q in a network transmission and controls a plurality of intermediate transmission stations each of which controls, in turn, a plurality of subscriber stations that are ultimate receiver stations.
a receiver station,	Page 480, lines 14 - 17 See Fig. 7E.	In so doing, receiving said message causes matrix switch, 258, to interconnect the apparatus of said station in the fashion of Fig. 7E.
	Page 34, lines 21 - 28 Fig. 2A is referenced in Fig. 7E.	Fig. 2A shows a TV signal decoder that detects signal information embedded in an inputted television frequency, renders said information into digital signals that subscriber station apparatus can process, identifies the particular apparatus to which said signals are addressed, and outputs said signals to said apparatus. Decoder, 203, in Fig. 1 is one such TV signal decoder; decoder, 30, in Fig. 2 is another.
	Page 36, lines 32 - 33 See Fig. 2A.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
	Page 156, line 33 - page 157, line 10. See	Fig. 3A shows one such preferred controller, 39.

	Fig. 3A.	One aspect of the preferred embodiment of controller, 39, is a series of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting functions of controller, 39. Buffer, 39C, and processor, 39D, are the second buffer and processor and perform protocol conversion functions. Buffer, 39E, and control processor, 39J, are the third buffer and processor. All controlled functions invoked at controller, 39, by received SPAM signals are invoked at control processor, 39J.
	More specifically, page 514, line 32 - page 515, line 2.	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above.
said receiver station including a receiver,	Page 34, lines 18 - 20	Signal decoder apparatus such as decoder, 203, in Fig. 1 and decoders, 30 and 40, in Fig. 2 are basic in the unified system of this invention.
	For example, page 35, line 7	... a standard line receiver, 33, well known in the art.
a memory operatively connected to said receiver, and at least one processor operatively connected to said memory, said method comprising the steps of:	Page 36, lines 32 – 33. See Figs. 2A-2C.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.

receiving an information transmission	Page 470, lines 9 - 12 See Figs. 7 & 7F.	At the station of Fig. 7 and 7F (which station is a subscriber station of the intermediate station of Fig. 6), in the fashions described above, apparatus is caused to receive the particular transmission ...
including mass medium programming including audio programming;	Page 1, lines 27 - 28	But television, radio, and broadcast print are only mass media.
	Page 11, lines 5 - 10	The present invention consists of an integrated system of methods and apparatus for communicating programming. The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print, and computer programming as well as combined medium programming.
	For example, page 478, lines 23 - 26	Then said studio ... commences transmitting the conventional television video and audio information of program unit Q.
performing a error correction routine by processing at least a portion of said information transmission;	Page 484, lines 12 - 15	... receiving the program- instruction-set message (#10) ... causes decoder, 203, to ...
	Page 156, line 33 - page 157, line 5. See Figs. 2A and 3A.	Fig. 3A shows one such preferred controller, 39. One aspect of the preferred embodiment of controller, 39, is a series of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting

		functions of controller, 39.
discerning a failure	Page 452, line 26 - page 453, line 2	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay. For example, receiving the second message of the "Wall Street Week" program causes the combining of Fig. 1A information and Fig. 1B information only at stations where information at the aforementioned SPAM-first-precondition and SPAM-second-precondition register memories matches selected information of the meter-monitor segment of said message.
	More specifically, page 454, lines 10 - 16	At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-205 instructions.
	Page 234, lines 12 - 19	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory ... particular first- condition-test-failed instructions of said conditional-overlay-at-205 instructions cause ...
	For example, page 514, line 32 - page 515, line 5	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-

		outputting messages causes a decoder, 203, of at least one of said stations to input particular second-condition-test-failed instructions to its associated microcomputer, 205, causing said microcomputer, 205, to ...
evidencing at least one of incomplete programming	Page 453, lines 15 - 17	... fails to occur at any given station because information of the completion of an identified overlay does not exist ...
	Page 454, lines 11 - 12	... stations that have not completed generating at RAM the information of said first overlay ...
and an incorrect	Page 234, lines 12 - 19	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory--including all stations that are preprogrammed with decryption key information of J but not with decryption key information of Z--particular first-condition-test-failed instructions of said conditional- overlay-at-205 instructions cause ...
	For example, page 226, lines 2 - 10	... only at those subscriber stations where the encrypted information of the first message has been decrypted, causing the apparatus of said stations to load and execute program instruction set information at the microcomputers, 205. Only at said stations does "program unit identification code" information of said "Wall Street Week" program exist at the SPAM-first- precondition register memories of the control processors, 39J.
mass medium programming element in said memory	Page 1, lines 27 - 28	But television, radio, and broadcast print are ... mass media.
	Page 11, lines 5 - 10	The present invention consists of an integrated system of methods and

		apparatus for communicating programming. The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print, and computer programming as well as combined medium programming.
	For example, page 481, lines 2 - 9	Receiving said message at the station of Figs. 7 and 7F causes decoder, 203, to detect the end of file signal of said message and to process the next received SPAM information as information of the header of a SPAM message, thereby causing said decoder, 203, to commence identifying and processing the individual SPAM messages of the SPAM information subsequently embedded in the transmission of the programming of Q.
	Page 60, lines 19 - 21	SPAM messages are composed of elements--headers, execution segments, meter-monitor segments, and information segments ...
	Page 36, lines 32 – 33. See Fig. 3A.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
by processing information received in said information transmission as corrected in said step of performing; and	Page 157, lines 20 – 24 (emphasis added). See Fig. 3A.	***Control processor, 39J,*** can invoke and process the controlled function of a first signal word while ... processor, 39B, corrects the information of a third signal word.
	Page 160, lines 3 – 30 (emphasis added)	The register memories of ***control processor, 39J,*** include ... ***SPAM-first-precondition, SPAM-second-precondition,*** ... and SPAM-address-of-next-instruction-upon- secondary-interrupt register memories whose functions are described below; and a plurality of working register memories that include

		first-working and second-working register memories.
	Page 159 line 30 - p. 160 line 19, especially page 160, lines 18-19	Control processor, 39J, has capacity for computing information and processing all control information necessary for controlling all apparatus of decoder, 203 (or such other decoder as the controller of a given control processor, 39J, may be installed in). In keeping with the function of control processor, 39J, as the processor at which all controlled functions of controller, 39, are invoked, all aforementioned particular register memories of controller, 39, are located at control processor, 39J. The register memories of control processor, 39J, include (but are not limited to) particular SPAM-input-signal register memory whose length in bit locations is sufficient to contain the longest possible instance of SPAM command information with associated padding bits; ... the aforementioned SPAM-length-info, SPAM-mm-format, SPAM-first-precondition, SPAM-second- precondition
executing a failure handling routine in consequence of said step of discerning a failure;	Page 453, lines 15 - 24	When a combining fails to occur at any given station because information of the completion of an identified overlay does not exist at said station, the controller, 203, of said station automatically causes the microcomputer, 205, to so-called "jump", in a jump fashion well known in the art, to that selected one of said lines of code where the instructions of said program instruction set commence causing the generation of the information of that particular overlay that is next to be combined.
	Page 234, lines 12 - 28	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register

		memory ... particular first- condition-test-failed instructions of said conditional-overlay-at-205 instructions cause the control processors, 39J, of said stations to ... to complete all conditional-overlay-at-205 instructions and, in so doing, to complete all controlled functions invoked by said second message ...
	For example, page 515, lines 2 - 9	Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to input particular second-condition-test-failed instructions to its associated microcomputer, 205, causing said microcomputer, 205, to jump to and commence processing additional instructions of its received program instruction set of Q.1 rather than to commence outputting locally generated combined medium programming.
wherein said method controls said receiver station.	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
	For example, page 514, line 32 - page 515, line 3	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to ...

26. (**Amended**) The method of controlling a receiver station of	Page 454, l. 22-31	... to cause said CPU to execute a so-called "machine language jump" to the particular so-called "offset address" of the

claim 25, wherein said step of executing a failure handling routine further includes the step of: at least one of completing,		information at RAM of said program instruction set that is associated, in the predetermined fashion of the instructions of said set, with said overlay-target number; and to cause said microcomputer, 205, to continue executing the instructions of said set from the instruction at said address. In so doing, said microcomputer, 205, can skip over and avoid executing instructions whose overlay time has passed.
correcting and	Page 453, l. 5-8	Finally, in order to cause microcomputers, 205, that fall behind to catch up, a particular fashion exists in the preferred embodiment for restoring efficient operations.
discarding at least a portion of said mass medium programming including said audio programming.	Page 453, l. 2-4	Microcomputers, 205, that fall behind are caused to jump over and avoid executing instructions that control the generating of overlay information (such as Fig. 1A) whose overlay time (that is, combining time) has passed.

27. (**Twice Amended**) A method of controlling	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
	For example, page 452, lines 26 - 30	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay.
	Page 374, line 32 - page 375, line 2	In example #10, a particular program originating studio transmits the commercial of program unit Q in a network transmission and controls a plurality of intermediate transmission stations each of which controls, in turn, a plurality of subscriber stations that are

		ultimate receiver stations.
a receiver station,	Page 480, lines 14 - 17 See Fig. 7E.	In so doing, receiving said message causes matrix switch, 258, to interconnect the apparatus of said station in the fashion of Fig. 7E.
	Page 34, lines 21 - 28 Fig. 2A is referenced in Fig. 7E.	Fig. 2A shows a TV signal decoder that detects signal information embedded in an inputted television frequency, renders said information into digital signals that subscriber station apparatus can process, identifies the particular apparatus to which said signals are addressed, and outputs said signals to said apparatus. Decoder, 203, in Fig. 1 is one such TV signal decoder; decoder, 30, in Fig. 2 is another.
	Page 36, lines 32 - 33 See Fig. 2A.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
	Page 156, line 33 - page 157, line 10. See Fig. 3A.	Fig. 3A shows one such preferred controller, 39. One aspect of the preferred embodiment of controller, 39, is a series of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting functions of controller, 39. Buffer, 39C, and processor, 39D, are the second buffer and processor and perform protocol conversion functions. Buffer, 39E, and control processor, 39J, are the third buffer and processor. All controlled functions invoked at controller, 39, by received SPAM signals are invoked at control processor, 39J.
	More specifically,	(In addition to the above described

	page 514, line 32 - page 515, line 2.	functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above.
said receiver station including a receiver,	Page 34, lines 18 - 20	Signal decoder apparatus such as decoder, 203, in Fig. 1 and decoders, 30 and 40, in Fig. 2 are basic in the unified system of this invention.
	For example, page 35, line 7	... a standard line receiver, 33, well known in the art.
a memory operatively connected to said receiver, and at least one processor operatively connected to said memory, said method comprising the steps of:	Page 36, lines 32 – 33. See Figs. 2A-2C.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
receiving an information transmission including computer programming which is capable of programming said receiver station;	Page 484, lines 12 – 18 (emphasis added)	At the station of Figs. 7 and 7F, receiving the program- instruction-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, ... the information segment of said message (which is the *program instruction set* of Q.1 and is the output file, PROGRAM.EXE, of said station).
	Page 24, lines 14 - 16	(Hereinafter, such a set of instructions that is loaded ... is called a "program instruction set.")
performing an error correction routine by processing at least a portion of said computer programming;	Page 484, lines 12 - 15	... receiving the program- instruction-set message (#10) ... causes decoder, 203, to ...

	Page 156, line 33 - page 157, line 5. See Figs. 2A and 3A.	Fig. 3A shows one such preferred controller, 39. One aspect of the preferred embodiment of controller, 39, is a series of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting functions of controller, 39.
discerning a failure	Page 452, line 26 - page 453, line 2	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay. For example, receiving the second message of the "Wall Street Week" program causes the combining of Fig. 1A information and Fig. 1B information only at stations where information at the aforementioned SPAM-first-precondition and SPAM-second-precondition register memories matches selected information of the meter-monitor segment of said message.
	More specifically, page 454, lines 10 - 13	At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, ...
	More specifically, page 234, lines 12 - 15	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory ...
	For example, page 514, line 32 - page 515, line 5	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of

		particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to input particular second-condition-test-failed instructions to its associated microcomputer, 205, causing said microcomputer, 205, to ...
evidencing at least one of incomplete programming	Page 453, lines 15 - 17	... fails to occur at any given station because information of the completion of an identified overlay does not exist ...
	Page 454, lines 11 - 12	... stations that have not completed generating at RAM the information of said first overlay ...
and an incorrect	Page 234, lines 12 - 15	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory ...
	Page 226, lines 2 - 10	... only at those subscriber stations where the encrypted information of the first message has been decrypted, causing the apparatus of said stations to load and execute program instruction set information at the microcomputers, 205. Only at said stations does "program unit identification code" information of said "Wall Street Week" program exist at the SPAM-first- precondition register memories of the control processors, 39J.
program element in said memory	Page 478, line 26	... program unit Q.
	Page 481, lines 7 - 9	... SPAM messages ... embedded in the transmission of the programming of Q.
	Page 60, lines 19 - 21	SPAM messages are composed of elements--headers, execution segments,

		meter-monitor segments, and information segments ...
	Page 36, lines 32 – 33. See Fig. 3A.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
by processing said computer programming received in said information transmission as corrected in said step of performing; and	Page 157, lines 20 – 24 (emphasis added). See Fig. 3A.	***Control processor, 39J,*** can invoke and process the controlled function of a first signal word while ... processor, 39B, corrects the information of a third signal word.
	Page 160, lines 3 - 30 (emphasis added)	The register memories of ***control processor, 39J,*** include ... ***SPAM-first-precondition, SPAM-second-precondition,*** ... and SPAM-address-of-next-instruction-upon- secondary-interrupt register memories whose functions are described below; and a plurality of working register memories that include first-working and second-working register memories.
	Page 159 line 30 - p. 160 line 19, especially page 160, lines 18-19	Control processor, 39J, has capacity for computing information and processing all control information necessary for controlling all apparatus of decoder, 203 (or such other decoder as the controller of a given control processor, 39J, may be installed in). In keeping with the function of control processor, 39J, as the processor at which all controlled functions of controller, 39, are invoked, all aforementioned particular register memories of controller, 39, are located at control processor, 39J. The register memories of control processor, 39J, include (but are not limited to) particular SPAM-input-signal register memory whose length in bit locations is sufficient to contain the longest possible instance of

		SPAM command information with associated padding bits; ... the aforementioned SPAM-length-info, SPAM-mm-format, SPAM-first-precondition, SPAM-second- precondition
executing a failure handling routine in accordance with said received computer programming;	Page 453, lines 15 - 24	When a combining fails to occur at any given station because information of the completion of an identified overlay does not exist at said station, the controller, 203, of said station automatically causes the microcomputer, 205, to so-called "jump", in a jump fashion well known in the art, to that selected one of said lines of code where the instructions of said program instruction set commence causing the generation of the information of that particular overlay that is next to be combined.
	Page 234, lines 12 - 28	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory ... particular first- condition-test-failed instructions of said conditional-overlay-at-205 instructions cause the control processors, 39J, of said stations to ... complete all conditional-overlay-at-205 instructions and, in so doing, to complete all controlled functions invoked by said second message at the secondary control level.)
	For example, page 515, lines 2 - 9	Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to input particular second-condition-test-failed instructions to its associated microcomputer, 205, causing said microcomputer, 205, to jump to and commence processing additional instructions of its received program instruction set of Q.1 rather than to commence outputting locally generated

		combined medium programming.
wherein said method controls said receiver station.	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
	For example, page 514, line 32 - page 515, line 3	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to ...

28. (**Twice Amended**) A method of controlling	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
	For example, page 452, lines 26 - 30	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay.
	Page 374, line 32 - page 375, line 2	In example #10, a particular program originating studio transmits the commercial of program unit Q in a network transmission and controls a plurality of intermediate transmission stations each of which controls, in turn, a plurality of subscriber stations that are ultimate receiver stations.

a receiver station,	Page 480, lines 14 - 17 See Fig. 7E.	In so doing, receiving said message causes matrix switch, 258, to interconnect the apparatus of said station in the fashion of Fig. 7E.
	Page 34, lines 21 - 28 Fig. 2A is referenced in Fig. 7E.	Fig. 2A shows a TV signal decoder that detects signal information embedded in an inputted television frequency, renders said information into digital signals that subscriber station apparatus can process, identifies the particular apparatus to which said signals are addressed, and outputs said signals to said apparatus. Decoder, 203, in Fig. 1 is one such TV signal decoder; decoder, 30, in Fig. 2 is another.
	Page 36, lines 32 - 33 See Fig. 2A.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
	Page 156, line 33 - page 157, line 10. See Fig. 3A.	Fig. 3A shows one such preferred controller, 39. One aspect of the preferred embodiment of controller, 39, is a series of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting functions of controller, 39. Buffer, 39C, and processor, 39D, are the second buffer and processor and perform protocol conversion functions. Buffer, 39E, and control processor, 39J, are the third buffer and processor. All controlled functions invoked at controller, 39, by received SPAM signals are invoked at control processor, 39J.
	More specifically, page 514, line 32 - page 515, line 2.	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at

		subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above.
said receiver station including a receiver,	Page 34, lines 18 - 20	Signal decoder apparatus such as decoder, 203, in Fig. 1 and decoders, 30 and 40, in Fig. 2 are basic in the unified system of this invention.
	For example, page 35, line 7	... a standard line receiver, 33, well known in the art.
a memory operatively connected to said receiver, and at least one processor operatively connected to said memory, said method comprising the steps of:	Page 36, lines 32 – 33. See Figs. 2A-2C.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
receiving an information transmission including a program;	Page 484, lines 12 – 18	At the station of Figs. 7 and 7F, receiving the program- instruction-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, ... the information segment of said message (which is the program instruction set of Q.1 and is the output file, PROGRAM.EXE, of said station).
performing an error correction routine by processing at least a portion of said information transmission;	Page 484, lines 12 – 15	... receiving the program- instruction-set message (#10) ... causes decoder, 203, to ...
	Page 156, line 33 – page 157, line 5. See Figs. 2A and 3A.	Fig. 3A shows one such preferred controller, 39. One aspect of the preferred embodiment of controller, 39, is a series

		of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting functions of controller, 39.
discerning a failure	Page 452, line 26 - page 453, line 2	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay. For example, receiving the second message of the "Wall Street Week" program causes the combining of Fig. 1A information and Fig. 1B information only at stations where information at the aforementioned SPAM-first-precondition and SPAM-second-precondition register memories matches selected information of the meter-monitor segment of said message.
	More specifically, page 454, lines 10 - 16	At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-205 instructions.
	Page 234, lines 12 - 19	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory ... particular first- condition-test-failed instructions of said conditional-overlay-at-205 instructions cause ...
	For example, page	(In addition to the above described

	514, line 32 - page 515, line 5	functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to input particular second-condition-test-failed instructions to its associated microcomputer, 205, causing said microcomputer, 205, to ...
evidencing at least one of incomplete programming	Page 453, lines 15 - 17	... fails to occur at any given station because information of the completion of an identified overlay does not exist ...
	Page 454, lines 11 - 12	... stations that have not completed generating at RAM the information of said first overlay ...
and an incorrect	Page 234, lines 12 - 19	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory--including all stations that are preprogrammed with decryption key information of J but not with decryption key information of Z--particular first-condition-test-failed instructions of said conditional- overlay-at-205 instructions cause ...
	For example, page 226, lines 2 - 10	... only at those subscriber stations where the encrypted information of the first message has been decrypted, causing the apparatus of said stations to load and execute program instruction set

		information at the microcomputers, 205. Only at said stations does "program unit identification code" information of said "Wall Street Week" program exist at the SPAM-first- precondition register memories of the control processors, 39J.
program element in said memory	Page 41, lines 20 - 25	The information of SPAM signals includes data, computer program instructions, and commands. ... Commands ... often execute computer programs or control steps in programs already in process.
	Page 60, lines 19 - 21	SPAM messages are composed of elements--headers, execution segments, meter-monitor segments, and information segments ...
	Page 36, lines 32 – 33 See Fig. 3A.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
by processing information received in said information transmission as corrected in said step of performing;	Page 157, lines 20 – 24. See Fig. 3A.	***Control processor, 39J,*** can invoke and process the controlled function of a first signal word while ... processor, 39B, corrects the information of a third signal word.
	Page 160, lines 3 - 30	The register memories of ***control processor, 39J,*** include ... ***SPAM-first precondition, SPAM-second-precondition,*** ... and SPAM-address-of-next-instruction-upon- secondary-interrupt register memories whose functions are described below; and a plurality of working register memories that include first-working and second-working register memories.
	Page 159 line 30 - p. 160 line 19, especially page 160,	Control processor, 39J, has capacity for computing information and processing all control information necessary for

	lines 18-19	controlling all apparatus of decoder, 203 (or such other decoder as the controller of a given control processor, 39J, may be installed in). In keeping with the function of control processor, 39J, as the processor at which all controlled functions of controller, 39, are invoked, all aforementioned particular register memories of controller, 39, are located at control processor, 39J. The register memories of control processor, 39J, include (but are not limited to) particular SPAM-input-signal register memory whose length in bit locations is sufficient to contain the longest possible instance of SPAM command information with associated padding bits; ... the aforementioned SPAM-length-info, SPAM-mm-format, SPAM-first-precondition, SPAM-second- precondition
selecting at least one of	Page 453, lines 18 - 22	... the controller, 203, of said station automatically causes the microcomputer, 205, to so-called "jump", in a jump fashion well known in the art, to that selected one of said lines of code where the instructions of said program instruction set ...
a plurality of failure handling routines to execute	Page 455, lines 5 - 29	In the case the second message of the "Wall Street Week" example, the overlay that said message causes to be combined is the first overlay generated under control of the program instruction set that generates said overlay. Accordingly, the information recorded, in a predetermined fashion, at particular history-of-efficiency memory at each controller, 39, of a decoder, 203, of said other stations (that have not completed generating the information of said first overlay at the time of receiving said second message) is "00000000" and indicates that said microcomputer, 205, has not failed to generate any overlay, generated under control of said set, on time. Thus when

		receiving said second message at said other stations causes the execution of said second-condition-test-failed instructions, said instructions cause said controllers, 39, to increment by one the overlay number information of said message, thereby generating overlay-target information of "00000010"; to cause the microcomputers, 205, of said stations to place information of said "00000010" at said overlay-target RAM memory; to cause said microcomputers, 205, to jump to and continue executing the instructions of said program instruction set at the instruction at the particular preprogrammed "offset address" of the particular line of code of said set that is identified by the particular label associated, in a predetermined fashion, with said "00000010"; ...
	Page 455, line 34 - page 456, line 8	Thereafter, whenever receiving a SPAM message of said "Wall Street Week" program causes a controller, 39, of said other stations to execute said second-condition-test-failed instructions, said instructions cause said controller, 39, to compute its overlay-target number by incrementing the overlay number information of said message by more than one and to cause the microcomputer, 205, of its station to restore efficiency by skipping over instructions that cause the generation of more than one overlay (including one or more overlays whose overlay time has not yet come).
	On the other hand, Page 234, lines 12-29	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory--including all stations that are preprogrammed with decryption key information of J but not with decryption key information of Z--particular first-

		condition-test-failed instructions of said conditional- overlay-at-205 instructions cause the control processors, 39J, of said stations to enter "0" at each of the aforementioned SPAM-Flag-first-condition-failed and SPAM- Flag-do-not-meter register memories, which memories are each normally "1"; to cause all SPAM information at the main and video RAMs of the microcomputers, 205, of said stations to be cleared; and to complete all conditional-overlay-at-205 instructions and, in so doing, to complete all controlled functions invoked by said second message at the secondary control level.)
in consequence of said step of discerning a failure; and	Page 453, lines 15 - 24	When a combining fails to occur at any given station because information of the completion of an identified overlay does not exist at said station, the controller, 203, of said station automatically causes the microcomputer, 205, to so-called "jump", in a jump fashion well known in the art, to that selected one of said lines of code where the instructions of said program instruction set commence causing the generation of the information of that particular overlay that is next to be combined.
executing said selected at least one of said plurality of failure handling routines;	Page 454, lines 10 – 29 (emphasis added)	At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-205 instructions. Executing said second-condition-test-failed instructions causes each of said controllers, 39, to compute a particular overlay-target number; to interrupt the operation of the CPU of the microcomputer, 205, of its station; to cause said CPU to place information of

		said overlay-target number at particular overlay-target RAM memory; to cause said CPU to execute a so-called "machine language jump" to the particular so-called "offset address" of the information at RAM of said program instruction set that is associated, in the predetermined fashion of the instructions of said set, with said overlay-target number; and to cause said microcomputer, 205, to continue *executing the instructions of said set from the instruction at said address.*
wherein said method controls said receiver station.	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
	Page 514, line 32 - page 515, line 3	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to ...

29. (**Twice Amended**) A method of controlling	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
	For example, page 452, lines 26 - 30	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the

		completion of the identified overlay.
	Page 374, line 32 - page 375, line 2	In example #10, a particular program originating studio transmits the commercial of program unit Q in a network transmission and controls a plurality of intermediate transmission stations each of which controls, in turn, a plurality of subscriber stations that are ultimate receiver stations.
a receiver station,	Page 480, lines 14 - 17 See Fig. 7E.	In so doing, receiving said message causes matrix switch, 258, to interconnect the apparatus of said station in the fashion of Fig. 7E.
	Page 34, lines 21 - 28 Fig. 2A is referenced in Fig. 7E.	Fig. 2A shows a TV signal decoder that detects signal information embedded in an inputted television frequency, renders said information into digital signals that subscriber station apparatus can process, identifies the particular apparatus to which said signals are addressed, and outputs said signals to said apparatus. Decoder, 203, in Fig. 1 is one such TV signal decoder; decoder, 30, in Fig. 2 is another.
	Page 36, lines 32 - 33 See Fig. 2A.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
	Page 156, line 33 - page 157, line 10. See Fig. 3A.	Fig. 3A shows one such preferred controller, 39. One aspect of the preferred embodiment of controller, 39, is a series of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting functions of controller, 39. Buffer, 39C, and processor, 39D, are the second buffer

		and processor and perform protocol conversion functions. Buffer, 39E, and control processor, 39J, are the third buffer and processor. All controlled functions invoked at controller, 39, by received SPAM signals are invoked at control processor, 39J.
	More specifically, page 514, line 32 - page 515, line 2.	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above.
said receiver station including a receiver,	Page 34, lines 18 - 20	Signal decoder apparatus such as decoder, 203, in Fig. 1 and decoders, 30 and 40, in Fig. 2 are basic in the unified system of this invention.
	For example, page 35, line 7	... a standard line receiver, 33, well known in the art.
a memory operatively connected to said receiver, and at least one processor operatively connected to said memory, said method comprising the steps of:	Page 36, lines 32 – 33. See Fs. 2A-2C.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
receiving an information transmission including a program;	Page 470, lines 9 – 12. See Figs. 7 and 7F.	At the station of Fig. 7 and 7F (which station is a subscriber station of the intermediate station of Fig. 6), in the fashions described above, apparatus is caused to receive the particular transmission ...
	Page 469, line 35 - page 470, line 1	The program originating studio of a particular network transmits the programming transmission ...

	Page 478, lines 23 - 26	Then said studio ... commences transmitting the conventional television video and audio information of program unit Q.
performing an error correction routine by processing at least a portion of said information transmission;	Page 491, lines 8 - 9	... receiving said 1st commence-outputting message (#10) causes decoder, 203, to ...
	Page 480, ll. 14-17	In so doing, receiving said message causes matrix switch, 258, to interconnect the apparatus of said station in the fashion of Fig. 7E.
	Page 34, ll. 21-28	Fig. 2A shows a TV signal decoder that detects signal information embedded in an inputted television frequency, renders said information into digital signals that subscriber station apparatus can process, identifies the particular apparatus to which said signals are addressed, and outputs said signals to said apparatus. Decoder, 203, in Fig. 1 is one such TV signal decoder; decoder, 30, in Fig. 2 is another.
	Page 36, ll. 32-33	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
	Page 156, line 33 - page 157, line 5. See Figs. 2A-2C.	Fig. 3A shows one such preferred controller, 39. One aspect of the preferred embodiment of controller, 39, is a series of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting functions of controller, 39.
	Page 481, lines 7 - 9	... SPAM messages ... subsequently

		embedded in the transmission of the programming of Q.
discerning a failure evidencing an incompletion of a function; and	Page 514, line 32 - page 515, line 5	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to input particular second-condition-test-failed instructions to its associated microcomputer, 205, causing said microcomputer, 205, to ...
	More specifically, page 454, lines 10 - 16	At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-205 instructions.
	Page 453, lines 2 - 4	Finally, in order to cause microcomputers, 205, that fall behind to catch up, a particular fashion exists in the preferred embodiment for restoring efficient operations.
executing a failure handling routine in consequence of said step of discerning a failure;	Page 453, lines 15 - 24	When a combining fails to occur at any given station because information of the completion of an identified overlay does not exist at said station, the controller, 203, of said station automatically causes the microcomputer, 205, to so-called "jump", in a jump fashion well known in the art, to that selected one of said lines of code where the instructions of said program instruction set commence causing the generation of the information of that particular overlay that is next to be

		combined.
	Page 515, lines 2 - 9	Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to input particular second-condition-test-failed instructions to its associated microcomputer, 205, causing said microcomputer, 205, to jump to and commence processing additional instructions of its received program instruction set of Q.1 rather than to commence outputting locally generated combined medium programming.
wherein said method controls said receiver station.	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
	Page 514, line 32 - page 515, line 3	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to ...

30. **(Twice Amended)** A method of controlling	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
	For example, page 452, lines 26 - 30	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a

		combining only at subscriber station where information exists of the completion of the identified overlay.
	Page 374, line 32 - page 375, line 2	In example #10, a particular program originating studio transmits the commercial of program unit Q in a network transmission and controls a plurality of intermediate transmission stations each of which controls, in turn, a plurality of subscriber stations that are ultimate receiver stations.
a receiver station,	Page 480, lines 14 - 17 See Fig. 7E.	In so doing, receiving said message causes matrix switch, 258, to interconnect the apparatus of said station in the fashion of Fig. 7E.
	Page 34, lines 21 - 28 Fig. 2A is referenced in Fig. 7E.	Fig. 2A shows a TV signal decoder that detects signal information embedded in an inputted television frequency, renders said information into digital signals that subscriber station apparatus can process, identifies the particular apparatus to which said signals are addressed, and outputs said signals to said apparatus. Decoder, 203, in Fig. 1 is one such TV signal decoder; decoder, 30, in Fig. 2 is another.
	Page 36, lines 32 - 33 See Fig. 2A.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
	Page 156, line 33 - page 157, line 10. See Fig. 3A.	Fig. 3A shows one such preferred controller, 39. One aspect of the preferred embodiment of controller, 39, is a series of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting

		functions of controller, 39. Buffer, 39C, and processor, 39D, are the second buffer and processor and perform protocol conversion functions. Buffer, 39E, and control processor, 39J, are the third buffer and processor. All controlled functions invoked at controller, 39, by received SPAM signals are invoked at control processor, 39J.
	More specifically, page 514, line 32 - page 515, line 2.	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above.
said receiver station including a receiver,	Page 34, lines 18 - 20	Signal decoder apparatus such as decoder, 203, in Fig. 1 and decoders, 30 and 40, in Fig. 2 are basic in the unified system of this invention.
	Page 35, line 7	... a standard line receiver, 33, well known in the art.
a memory operatively connected to said receiver, and at least one processor operatively connected to said memory, said method comprising the steps of:	Page 36, lines 32 – 33. See Figs. 2A-2C.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
receiving an information transmission	Page 470, lines 9 - 12	At the station of Fig. 7 and 7F (which station is a subscriber station of the intermediate station of Fig. 6), in the fashions described above, apparatus is caused to receive the particular transmission ...
including processor instructions	Page 481, lines 7 - 9	... SPAM messages ... subsequently embedded in the transmission of the

		programming of Q.
	Page 484, lines 2 - 9	... causing each intermediate transmission station, including the station of Fig. 6 and said second intermediate transmission station, to transmit its specific program-instruction-set message (#10), as described above. Receiving the specific program-instruction-set message (#10) of its intermediate transmission station causes each ultimate receiver station to ...
	Page 484, lines 16 - 17	... the information segment of said message (which is the program instruction set of Q.1 ...
	Page 24, lines 14 - 16	(Hereinafter, such a set of instructions that is loaded ... is called a "program instruction set.")
and a program;	Page 478, lines 23 - 26	Then said studio ... commences transmitting the conventional television video and audio information of program unit Q.
performing an error correction routine by processing at least a portion of said information transmission;	Page 484, lines 12 - 15	... receiving the program- instruction-set message (#10) ... causes decoder, 203, to ...
	Page 156, line 33 - page 157, line 5	Fig. 3A shows one such preferred controller, 39. One aspect of the preferred embodiment of controller, 39, is a series of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting functions of controller, 39.

programming said receiver station to perform	On the one hand, page 484, lines 12 – 17 (emphasis added)	At the station of Figs. 7 and 7F, receiving the program- instruction-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load ... at microcomputer, 205, the information segment of said message (which is the ***program instruction set*** of Q.1 ...
	On the other hand, page 120, line 23	... preprogrammed conditional-overlay-at-205 instructions.
a failure handling routine	On the one hand, page 453, lines 2 – 24 (emphasis added)	Finally, in order to cause microcomputers, 205, that fall behind to catch up, a particular fashion exists in the preferred embodiment for restoring efficient operations. Microcomputers, 205, that fall behind are caused to jump over and avoid executing instructions that control the generating of overlay information (such as Fig. 1A) whose overlay time (that is, combining time) has passed. In a fashion well known in the art, selected so-called "lines of code" of ***program instruction sets*** are preprogrammed with label information that identifies each one of said line, and the instructions of said set periodically compare preprogrammed information of said set to information at particular overlay- target RAM memory in order to control efficient operation in a fashion described more fully below. When a combining fails to occur at any given station because information of the completion of an identified overlay does not exist at said station, the controller, 203, of said station automatically causes the microcomputer, 205, to so-called "jump", in a jump fashion well known in the art, to that selected one of said lines of code where the instructions of said program instruction set commence causing the generation of the information of that particular overlay that is next to be

		combined.
	Page 454, lines 10 - 18	combined medium information (eg., Fig. 1C). At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-205 instructions. Executing said second-condition-test-failed instructions causes ...
	On the other hand, Page 234, lines 12-29	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory--including all stations that are preprogrammed with decryption key information of J but not with decryption key information of Z--particular first-condition-test-failed instructions of said conditional- overlay-at-205 instructions cause the control processors, 39J, of said stations to enter "0" at each of the aforementioned SPAM-Flag-first-condition-failed and SPAM- Flag-do-not-meter register memories, which memories are each normally "1"; to cause all SPAM information at the main and video RAMs of the microcomputers, 205, of said stations to be cleared; and to complete all conditional-overlay-at-205 instructions and, in so doing, to complete all controlled functions invoked by said second message at the secondary control level.)
in accordance with said processor instructions;	Page 15, lines 7 - 9	In the present invention, particular signal processing apparatus (hereinafter called the "signal processor") detect signals and, in accordance with

		instructions in the signals ...
	More specifically, page 452, lines 26 - 30	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay.
	For example, page 514, line 32 - page 515, line 2	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes ...
discerning a failure	Page 452, line 26 - page 453, line 2	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay. For example, receiving the second message of the "Wall Street Week" program causes the combining of Fig. 1A information and Fig. 1B information only at stations where information at the aforementioned SPAM-first-precondition and SPAM-second-precondition register memories matches selected information of the meter-monitor segment of said message.
	More specifically, page 454, lines 10 - 16	At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-205 instructions.

	More specifically, page 234, lines 12 - 19	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory ... particular first- condition-test-failed instructions of said conditional-overlay-at-205 instructions cause ...
	For example, page 514, line 32 - page 515, line 5	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to input particular second-condition-test-failed instructions to its associated microcomputer, 205, causing said microcomputer, 205, to ...
evidencing at least one of incomplete programming	Page 453, lines 15 - 17	... fails to occur at any given station because information of the completion of an identified overlay does not exist ...
	Page 454, lines 11 - 12	... stations that have not completed generating at RAM the information of said first overlay ...
and an incorrect	Page 234, lines 12 - 19	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory--including all stations that are preprogrammed with decryption key information of J but not with decryption key information of Z--particular first-condition-test-failed instructions of said conditional- overlay-at-205 instructions cause ...
	For example, page	... only at those subscriber stations where

	226, lines 2 - 10	the encrypted information of the first message has been decrypted, causing the apparatus of said stations to load and execute program instruction set information at the microcomputers, 205. Only at said stations does "program unit identification code" information of said "Wall Street Week" program exist at the SPAM-first- precondition register memories of the control processors, 39J.
program element in said memory	Page 478, line 26	... program unit Q.
	Page 481, lines 7 - 9	... SPAM messages ... subsequently embedded in the transmission of the programming of Q.
	Page 60, lines 19 - 21	SPAM messages are composed of elements--headers, execution segments, meter-monitor segments, and information segments ...
	Page 36, lines 32 – 33. See Fig. 3A.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
by processing information received in said information transmission as corrected in said step of performing; and	Page 157, lines 20 – 24 (emphasis added). See Fig. 3A.	***Control processor, 39J,*** can invoke and process the controlled function of a first signal word while ... processor, 39B, corrects the information of a third signal word.
	Page 160, lines 3 - 30 (emphasis added)	The register memories of ***control processor, 39J,*** include ... ***SPAM-first-precondition, SPAM-second-precondition,*** ... and SPAM-address-of-next-instruction-upon- secondary-interrupt register memories whose functions are described below; and a plurality of working register memories that include first-working and second-working register memories.

	Page 159 line 30 - p. 160 line 19, especially page 160, lines 18-19	Control processor, 39J, has capacity for computing information and processing all control information necessary for controlling all apparatus of decoder, 203 (or such other decoder as the controller of a given control processor, 39J, may be installed in). In keeping with the function of control processor, 39J, as the processor at which all controlled functions of controller, 39, are invoked, all aforementioned particular register memories of controller, 39, are located at control processor, 39J. The register memories of control processor, 39J, include (but are not limited to) particular SPAM-input-signal register memory whose length in bit locations is sufficient to contain the longest possible instance of SPAM command information with associated padding bits; ... the aforementioned SPAM-length-info, SPAM-mm-format, SPAM-first-precondition, SPAM-second- precondition
executing a failure handling routine in consequence of said step of discerning a failure;	Page 453, lines 15 - 24	When a combining fails to occur at any given station because information of the completion of an identified overlay does not exist at said station, the controller, 203, of said station automatically causes the microcomputer, 205, to so-called "jump", in a jump fashion well known in the art, to that selected one of said lines of code where the instructions of said program instruction set commence causing the generation of the information of that particular overlay that is next to be combined.
	Page 234, lines 12 - 28	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory ... particular first- condition-test-failed instructions of said conditional-overlay-at-205 instructions cause the

		control processors, 39J, of said stations to ... complete all conditional-overlay-at-205 instructions and, in so doing, to complete all controlled functions invoked by said second message ...
wherein said failure handling routine is performed	See the support for the immediately preceding executing step.	
in accordance with said processor instructions	Page 15, lines 7 - 9	In the present invention, particular signal processing apparatus (hereinafter called the "signal processor") detect signals and, in accordance with instructions in the signals ...
	More specifically, page 452, lines 26 - 30	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay.
and wherein said method controls said receiver station.	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
	Page 514, line 32 - page 515, line 3	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to ...

31. (**Amended**) The method of controlling a receiver station of claim 30, wherein said program comprises	Page 478, lines 23 - 26	Then said studio ... commences transmitting the conventional television video and audio information of program unit Q.
mass medium	Page 1, lines 27 - 28	But television, radio, and broadcast print are only mass media.
programming.	Page 11, lines 6 - 10	The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print, and computer programming as well as combined medium programming. The system includes

32. (**Amended**) The method of controlling a receiver station of claim 30, wherein said program comprises computer programming.	See the support for claim 27.	

33. (**Amended**) The method of controlling a receiver station of claim 30, further comprising the steps of: receiving a portion of a failure handling routine from a remote station; directing said received a portion of a failure handling routine to a programmable device; and storing said	Page 23, line 35 - page 24, line 21	Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series. Microcomputer, 205, evaluates the initial signal word or words which instruct it to load at RAM (from the input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions that follows said word or words just as the information of a file named FILE.EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the

portion of said failure handling routine at said programmable device.		disk drive of said disk inputs) and run were the command "FILE" entered from the console keyboard to the system level of the installed disk operating system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.") In a fashion well known in the art, microcomputer, 205, loads the received binary information of said set at a designated place in RAM until, in a predetermined fashion, it detects the end of said set, and it executes said set as an assembled, machine language program in a fashion well known in the art.
	Page 453, line 2 - page 454, line 31	Finally, in order to cause microcomputers, 205, that fall behind to catch up, a particular fashion exists in the preferred embodiment for restoring efficient operations. Microcomputers, 205, that fall behind are caused to jump over and avoid executing instructions that control the generating of overlay information (such as Fig. 1A) whose overlay time (that is, combining time) has passed. In a fashion well known in the art, selected so-called "lines of code" of program instruction sets are preprogrammed with label information that identifies each one of said line, and the instructions of said set periodically compare preprogrammed information of said set to information at particular overlay- target RAM memory in order to control efficient operation in a fashion described more fully below. When a combining fails to occur at any given station because information of the completion of an identified overlay does not exist at said station, the controller, 203, of said station automatically causes the microcomputer, 205, to so-called "jump", in a jump fashion well known in the art, to that selected one of said lines of code where the instructions of said program instruction set commence

		causing the generation of the information of that particular overlay that is next to be combined. For example, at the start of the "Wall Street Week" example, information of "00000000" exists at the SPAM-second-precondition register memories of the decoders, 203, of every subscriber station. The overlay of Fig. 1A is the first overlay of the "Wall Street Week" program, and the information of the meter-monitor field of the second message of said example identifies said overlay with binary information of "00000001". The next overlay of said program, which is the second overlay, is identified with information of "00000010". Receiving said second message causes the decoders, 203, at each subscriber station to compare information at said SPAM-second-precondition register memories to the "00000001" information of the overlay number field of said message. At those stations that have completed generating at RAM the information of said first overlay (eg., Fig. 1A), the instructions of the program instruction set of said example have caused information of "00000001" to be placed at said SPAM-second-precondition memories. At said stations, matches result and cause the combining of locally generated overlay information (eg., Fig. 1A) with the transmitted Fig. 1B information and cause the display of combined medium information (eg., Fig. 1C). At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-205 instructions. Executing said second-condition-test-failed instructions causes each of said controllers, 39, to compute a

		particular overlay-target number; to interrupt the operation of the CPU of the microcomputer, 205, of its station; to cause said CPU to place information of said overlay-target number at particular overlay-target RAM memory; to cause said CPU to execute a so-called "machine language jump" to the particular so-called "offset address" of the information at RAM of said program instruction set that is associated, in the predetermined fashion of the instructions of said set, with said overlay-target number; and to cause said microcomputer, 205, to continue executing the instructions of said set from the instruction at said address. In so doing, said microcomputer, 205, can skip over and avoid executing instructions whose overlay time has passed.

34. (**Twice Amended**) A method of controlling	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
	For example, page 452, lines 26 - 30	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay.
	Page 374, line 32 - page 375, line 2	In example #10, a particular program originating studio transmits the commercial of program unit Q in a network transmission and controls a plurality of intermediate transmission stations each of which controls, in turn, a plurality of subscriber stations that are ultimate receiver stations.

a receiver station,	Page 480, lines 14 - 17 See Fig. 7E.	In so doing, receiving said message causes matrix switch, 258, to interconnect the apparatus of said station in the fashion of Fig. 7E.
	Page 34, lines 21 - 28 Fig. 2A is referenced in Fig. 7E.	Fig. 2A shows a TV signal decoder that detects signal information embedded in an inputted television frequency, renders said information into digital signals that subscriber station apparatus can process, identifies the particular apparatus to which said signals are addressed, and outputs said signals to said apparatus. Decoder, 203, in Fig. 1 is one such TV signal decoder; decoder, 30, in Fig. 2 is another.
	Page 36, lines 32 - 33 See Fig. 2A.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
	Page 156, line 33 - page 157, line 10. See Fig. 3A.	Fig. 3A shows one such preferred controller, 39. One aspect of the preferred embodiment of controller, 39, is a series of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting functions of controller, 39. Buffer, 39C, and processor, 39D, are the second buffer and processor and perform protocol conversion functions. Buffer, 39E, and control processor, 39J, are the third buffer and processor. All controlled functions invoked at controller, 39, by received SPAM signals are invoked at control processor, 39J.
	More specifically, page 514, line 32 - page 515, line 2.	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at

		subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above.
said receiver station including a receiver,	Page 34, lines 18 - 20	Signal decoder apparatus such as decoder, 203, in Fig. 1 and decoders, 30 and 40, in Fig. 2 are basic in the unified system of this invention.
	For example, page 35, line 7	... a standard line receiver, 33, well known in the art.
a memory operatively connected to said receiver, and at least one processor operatively connected to said memory, said method comprising the steps of:	Page 36, lines 32 – 33. See Figs. 2A-2C.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
receiving one or more information transmissions, each of said information transmissions	Page 470, lines 3 - 12	Said transmission is received at the intermediate transmission station of Fig. 6 and retransmitted immediately on the cable channel of modulator, 83. (Said transmission is also received at the aforementioned second intermediate transmission station of example #10 and retransmitted immediately.) At the station of Fig. 7 and 7F (which station is a subscriber station of the intermediate station of Fig. 6), in the fashions described above, apparatus is caused to receive the particular transmission ...
including processor instructions	Page 481, lines 7 - 9	... SPAM messages ... subsequently embedded in the transmission of the programming of Q.
	Page 59, lines 29 - 31	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber

		stations.
and a program;	Page 478, lines 23 - 26	Then said studio ... commences transmitting the conventional television video and audio information of program unit Q.
performing an error correction routine by processing at least one portion of said at least one information transmission;	Page 484, lines 12 - 15	... receiving the program- instruction-set message (#10) ... causes decoder, 203, to ...
	Page 156, line 33 - page 157, line 5	Fig. 3A shows one such preferred controller, 39. One aspect of the preferred embodiment of controller, 39, is a series of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting functions of controller, 39.
programming said receiver station to perform	On the one hand, page 484, lines 12 – 17 (emphasis added)	At the station of Figs. 7 and 7F, receiving the program- instruction-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load ... at microcomputer, 205, the information segment of said message (which is the ***program instruction set*** of Q.1 ...
	On the one hand, page 120, line 23	... preprogrammed conditional-overlay-at-205 instructions.
at least one failure handling routine	Page 453, lines 2 – 24 (emphasis added)	Finally, in order to cause microcomputers, 205, that fall behind to catch up, a particular fashion exists in the preferred embodiment for restoring efficient operations. Microcomputers, 205,

		that fall behind are caused to jump over and avoid executing instructions that control the generating of overlay information (such as Fig. 1A) whose overlay time (that is, combining time) has passed. In a fashion well known in the art, selected so-called "lines of code" of ***program instruction sets*** are preprogrammed with label information that identifies each one of said line, and the instructions of said set periodically compare preprogrammed information of said set to information at particular overlay- target RAM memory in order to control efficient operation in a fashion described more fully below. When a combining fails to occur at any given station because information of the completion of an identified overlay does not exist at said station, the controller, 203, of said station automatically causes the microcomputer, 205, to so-called "jump", in a jump fashion well known in the art, to that selected one of said lines of code where the instructions of said program instruction set commence causing the generation of the information of that particular overlay that is next to be combined.
	Page 454, lines 10 - 18	At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-205 instructions. Executing said second-condition-test-failed instructions causes ...
	On the other hand, Page 234, lines 12-29	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information

		at SPAM-first- precondition register memory--including all stations that are preprogrammed with decryption key information of J but not with decryption key information of Z--particular first-condition-test-failed instructions of said conditional- overlay-at-205 instructions cause the control processors, 39J, of said stations to enter "0" at each of the aforementioned SPAM-Flag-first-condition-failed and SPAM- Flag-do-not-meter register memories, which memories are each normally "1"; to cause all SPAM information at the main and video RAMs of the microcomputers, 205, of said stations to be cleared; and to complete all conditional-overlay-at-205 instructions and, in so doing, to complete all controlled functions invoked by said second message at the secondary control level.)
in accordance with said processor instructions;	Page 15, lines 7 - 9	In the present invention, particular signal processing apparatus (hereinafter called the "signal processor") detect signals and, in accordance with instructions in the signals ...
	More specifically, page 452, lines 26 - 30	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay.
	For example, page 514, line 32 - page 515, line 2	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes ...

discerning a failure	Page 452, line 26 - page 453, line 2	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay. For example, receiving the second message of the "Wall Street Week" program causes the combining of Fig. 1A information and Fig. 1B information only at stations where information at the aforementioned SPAM-first-precondition and SPAM-second-precondition register memories matches selected information of the meter-monitor segment of said message.
	More specifically, page 454, lines 10 - 16	At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-205 instructions.
	More specifically, page 234, lines 12 - 19	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory ... particular first- condition-test-failed instructions of said conditional-overlay-at-205 instructions cause ...
evidencing at least one of incomplete programming	Page 453, lines 15 - 17	... fails to occur at any given station because information of the completion of an identified overlay does not exist ...
	Page 454, lines 11 - 12	... stations that have not completed generating at RAM the information of said first overlay ...
and an incorrect	Page 234, lines 12 - 19	(At those subscriber stations where the information of the program unit field

		in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory--including all stations that are preprogrammed with decryption key information of J but not with decryption key information of Z--particular first-condition-test-failed instructions of said conditional- overlay-at-205 instructions cause ...
	For example, page 226, lines 2 - 10	... only at those subscriber stations where the encrypted information of the first message has been decrypted, causing the apparatus of said stations to load and execute program instruction set information at the microcomputers, 205. Only at said stations does "program unit identification code" information of said "Wall Street Week" program exist at the SPAM-first- precondition register memories of the control processors, 39J.
program element in said memory; and	Page 478, line 26	... program unit Q.
	Page 481, lines 7 - 9	... SPAM messages ... subsequently embedded in the transmission of the programming of Q.
	Page 60, lines 19 - 21	SPAM messages are composed of elements--headers, execution segments, meter-monitor segments, and information segments ...
	Page 36, lines 32 – 33. See Fig. 3A.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
executing said at least one failure handling routine in consequence of said step of discerning a	Page 453, lines 15 - 24	When a combining fails to occur at any given station because information of the completion of an identified overlay does not exist at said station, the controller, 203, of said station automatically causes

failure;		the microcomputer, 205, to so-called "jump", in a jump fashion well known in the art, to that selected one of said lines of code where the instructions of said program instruction set commence causing the generation of the information of that particular overlay that is next to be combined.
	Page 234, lines 12 - 28	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory ... particular first- condition-test-failed instructions of said conditional-overlay-at-205 instructions cause the control processors, 39J, of said stations to ... complete all conditional-overlay-at-205 instructions and, in so doing, to complete all controlled functions invoked by said second message ...
wherein at least one failure handling routine is performed	See support for the immediately preceding executing step.	
in accordance with said processor instructions	Page 15, lines 7 - 9	In the present invention, particular signal processing apparatus (hereinafter called the "signal processor") detect signals and, in accordance with instructions in the signals ...
	Page 452, lines 26 - 30	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay.
	Page 514, line 32 - page 515, line 2	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field

		distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes ...
and wherein said method controls said receiver station.	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
	Page 514, line 32 - page 515, line 3	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to ...

SECOND EMBODIMENT

5. **(Twice Amended)** A method of controlling	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
	For example, page 452, lines 26 - 30	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay.
	Page 374, line 32 - page 375, line 2	In example #10, a particular program originating studio transmits the commercial of program unit Q in a network transmission and controls a plurality of intermediate transmission stations each of which controls, in turn, a plurality of subscriber stations that are ultimate receiver stations.
a receiver station,	Page 480, lines 14 - 17 See Fig. 7E.	In so doing, receiving said message causes matrix switch, 258, to interconnect the apparatus of said station in the fashion of Fig. 7E.
	Page 34, lines 21 - 28 Fig. 2A is referenced in Fig. 7E.	Fig. 2A shows a TV signal decoder that detects signal information embedded in an inputted television frequency, renders said information into digital signals that subscriber station apparatus can process, identifies the particular apparatus to which said signals are addressed, and outputs said signals to said apparatus. Decoder, 203, in Fig. 1 is one such TV signal decoder; decoder, 30, in Fig. 2 is another.

	Page 36, lines 32 - 33 See Fig. 2A.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
	Page 156, line 33 - page 157, line 10. See Fig. 3A.	Fig. 3A shows one such preferred controller, 39. One aspect of the preferred embodiment of controller, 39, is a series of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting functions of controller, 39. Buffer, 39C, and processor, 39D, are the second buffer and processor and perform protocol conversion functions. Buffer, 39E, and control processor, 39J, are the third buffer and processor. All controlled functions invoked at controller, 39, by received SPAM signals are invoked at control processor, 39J.
	More specifically, page 514, line 32 - page 515, line 2.	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above.
	Page 374, line 32 - page 375, line 2	In example #10, a particular program originating studio transmits the commercial of program unit Q in a network transmission and controls a plurality of intermediate transmission stations each of which controls, in turn, a plurality of subscriber stations that are ultimate receiver stations.
a receiver station,	Page 480, lines 14 - 17	In so doing, receiving said message causes matrix switch, 258, to interconnect the

	See Fig. 7E.	apparatus of said station in the fashion of Fig. 7E.
	Page 34, lines 21 - 28 Fig. 2A is referenced in Fig. 7E.	Fig. 2A shows a TV signal decoder that detects signal information embedded in an inputted television frequency, renders said information into digital signals that subscriber station apparatus can process, identifies the particular apparatus to which said signals are addressed, and outputs said signals to said apparatus. Decoder, 203, in Fig. 1 is one such TV signal decoder; decoder, 30, in Fig. 2 is another.
	Page 36, lines 32 - 33 See Fig. 2A.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
	Page 156, line 33 - page 157, line 10. See Fig. 3A.	Fig. 3A shows one such preferred controller, 39. One aspect of the preferred embodiment of controller, 39, is a series of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting functions of controller, 39. Buffer, 39C, and processor, 39D, are the second buffer and processor and perform protocol conversion functions. Buffer, 39E, and control processor, 39J, are the third buffer and processor. All controlled functions invoked at controller, 39, by received SPAM signals are invoked at control processor, 39J.
	More specifically, page 514, line 32 - page 515, line 2.	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field

		distribution system, 93, to function in the restoring efficiency fashion described above.
said receiver station including a receiver,	Page 34, lines 18 - 20	Signal decoder apparatus such as decoder, 203, in Fig. 1 and decoders, 30 and 40, in Fig. 2 are basic in the unified system of this invention.
	For example, Page 35, line 7	... a standard line receiver, 33, well known in the art.
a memory operatively connected to said receiver, and at least one processor operatively connected to said memory, said method comprising the steps of:	Page 36, lines 32 – 33 See Figs. 2A-2C.	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
receiving an information transmission including	Page 470, lines 9 - 12	At the station of Fig. 7 and 7F (which station is a subscriber station of the intermediate station of Fig. 6), in the fashions described above, apparatus is caused to receive the particular transmission ...
processor instructions	Page 481, lines 7 - 9	... the individual SPAM messages of the SPAM information subsequently embedded in the transmission of the programming of Q.
	Page 59, lines 29 - 31	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
and a program;	Page 41, lines 28 - 29	... program units of conventional television, radio, and other media.
	More specifically, page 478, lines 23 - 26	Then said studio ... commences transmitting the conventional television video and audio information of program

		unit Q.
performing an error correction routine by processing at least a portion of said information transmission;	Page 484, lines 12 - 15	... receiving the program- instruction-set message (#10) ... causes decoder, 203, to ...
	Page 480, ll. 14-17	In so doing, receiving said message causes matrix switch, 258, to interconnect the apparatus of said station in the fashion of Fig. 7E.
	Page 34, ll. 21-28	Fig. 2A shows a TV signal decoder that detects signal information embedded in an inputted television frequency, renders said information into digital signals that subscriber station apparatus can process, identifies the particular apparatus to which said signals are addressed, and outputs said signals to said apparatus. Decoder, 203, in Fig. 1 is one such TV signal decoder; decoder, 30, in Fig. 2 is another.
	Page 36, ll. 32-33	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
	Page 156, line 33 - page 157, line 5. See Figs. 2A and 3A.	Fig. 3A shows one such preferred controller, 39. One aspect of the preferred embodiment of controller, 39, is a series of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting functions of controller, 39.
programming said receiver station to perform	On the one hand, page 484, lines 12 – 17 (emphasis added)	At the station of Figs. 7 and 7F, receiving the program- instruction-set message (#10) transmitted by the intermediate

		transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load ... at microcomputer, 205, the information segment of said message (which is the ***program instruction set*** of Q.1 ...
	On the other hand, page 120, line 23	... preprogrammed conditional-overlay-at-205 instructions.
a failure handling routine	On the one hand, page 453, lines 2 – 24 (emphasis added)	Finally, in order to cause microcomputers, 205, that fall behind to catch up, a particular fashion exists in the preferred embodiment for restoring efficient operations. Microcomputers, 205, that fall behind are caused to jump over and avoid executing instructions that control the generating of overlay information (such as Fig. 1A) whose overlay time (that is, combining time) has passed. In a fashion well known in the art, selected so-called "lines of code" of ***program instruction sets*** are preprogrammed with label information that identifies each one of said line, and the instructions of said set periodically compare preprogrammed information of said set to information at particular overlay- target RAM memory in order to control efficient operation in a fashion described more fully below. When a combining fails to occur at any given station because information of the completion of an identified overlay does not exist at said station, the controller, 203, of said station automatically causes the microcomputer, 205, to so-called "jump", in a jump fashion well known in the art, to that selected one of said lines of code where the instructions of said program instruction set commence causing the generation of the information of that particular overlay that is next to be combined.
	Page 454, lines 10 -	At other stations that have not completed

	18	generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-205 instructions. Executing said second-condition-test-failed instructions causes ...
	On the other hand, Page 234, lines 12-29	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory--including all stations that are preprogrammed with decryption key information of J but not with decryption key information of Z--particular first-condition-test-failed instructions of said conditional- overlay-at-205 instructions cause the control processors, 39J, of said stations to enter "0" at each of the aforementioned SPAM-Flag-first-condition-failed and SPAM- Flag-do-not-meter register memories, which memories are each normally "1"; to cause all SPAM information at the main and video RAMs of the microcomputers, 205, of said stations to be cleared; and to complete all conditional-overlay-at-205 instructions and, in so doing, to complete all controlled functions invoked by said second message at the secondary control level.)
in accordance with said processor instructions of said information transmission as corrected in said step of performing;	Page 15, lines 7 - 9	In the present invention, particular signal processing apparatus (hereinafter called the "signal processor") detect signals and, in accordance with instructions in the signals ...
	More specifically,	... any given SPAM message that causes a

	page 452, lines 26 - 30	combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay.
	For example, page 514, line 32 – page 515, line 2	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes ...
discerning a failure	Page 452, line 26 - page 453, line 2	... any given SPAM message that causes a combining specifies the identity of the particular overlay information whose combining it causes and causes a combining only at subscriber station where information exists of the completion of the identified overlay. For example, receiving the second message of the "Wall Street Week" program causes the combining of Fig. 1A information and Fig. 1B information only at stations where information at the aforementioned SPAM-first-precondition and SPAM-second-precondition register memories matches selected information of the meter-monitor segment of said message.
	More specifically, page 454, lines 10 - 16	At other stations that have not completed generating at RAM the information of said first overlay (eg., Fig. 1A), matches do not result, causing the controllers, 39, of the decoders, 203, of said stations to execute the aforementioned particular second-condition-test-failed instructions of the aforementioned conditional-overlay-at-205 instructions.
	More specifically,	(At those subscriber stations where

	page 234, lines 12 - 19	the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory ... particular first- condition-test-failed instructions of said conditional-overlay-at-205 instructions cause ...
	For example, page 514, line 32 - page 515, line 5	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes a decoder, 203, of at least one of said stations to input particular second-condition-test-failed instructions to its associated microcomputer, 205, causing said microcomputer, 205, to ...
evidencing at least one of incomplete programming	Page 453, lines 15 - 17	... fails to occur at any given station because information of the completion of an identified overlay does not exist ...
	Page 454, lines 11 - 12	... stations that have not completed generating at RAM the information of said first overlay ...
and an incorrect	Page 234, lines 12 - 19	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory--including all stations that are preprogrammed with decryption key

		information of J but not with decryption key information of Z--particular first-condition-test-failed instructions of said conditional- overlay-at-205 instructions cause ...
	For example, page 226, lines 2 - 10	... only at those subscriber stations where the encrypted information of the first message has been decrypted, causing the apparatus of said stations to load and execute program instruction set information at the microcomputers, 205. Only at said stations does "program unit identification code" information of said "Wall Street Week" program exist at the SPAM-first- precondition register memories of the control processors, 39J.
program element in said memory	Page 478, line 26	... program unit Q.
	Page 481, lines 7 - 9	... SPAM messages ... subsequently embedded in the transmission of the programming of Q.
	Page 60, lines 19 - 21	SPAM messages are composed of elements--headers, execution segments, meter-monitor segments, and information segments ...
	Page 36, lines 32 – 33. See Fig. 3A	Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
by processing information received in said information transmission as corrected in said step of performing; and	Page 157, lines 20 – 24 (emphasis added). See Fig. 3A.	***Control processor, 39J,*** can invoke and process the controlled function of a first signal word while ... processor, 39B, corrects the information of a third signal word.
	Page 160, lines 3 – 30 (emphasis added)	The register memories of ***control processor, 39J,*** include ... ***SPAM-first-precondition, SPAM-second-***

		precondition, ... and SPAM-address-of-next-instruction-upon- secondary-interrupt register memories whose functions are described below; and a plurality of working register memories that include first-working and second-working register memories.
	Page 159 line 30 - p. 160 line 19, especially page 160, lines 18-19	Control processor, 39J, has capacity for computing information and processing all control information necessary for controlling all apparatus of decoder, 203 (or such other decoder as the controller of a given control processor, 39J, may be installed in). In keeping with the function of control processor, 39J, as the processor at which all controlled functions of controller, 39, are invoked, all aforementioned particular register memories of controller, 39, are located at control processor, 39J. The register memories of control processor, 39J, include (but are not limited to) particular SPAM-input-signal register memory whose length in bit locations is sufficient to contain the longest possible instance of SPAM command information with associated padding bits; ... the aforementioned SPAM-length-info, SPAM-mm-format, SPAM-first-precondition, SPAM-second- precondition
executing said error correction routine in consequence of said step of discerning a failure;	Page 453, lines 15 - 24	When a combining fails to occur at any given station because information of the completion of an identified overlay does not exist at said station, the controller, 203, of said station automatically causes the microcomputer, 205, to so-called "jump", in a jump fashion well known in the art, to that selected one of said lines of code where the instructions of said program instruction set commence causing the generation of the information of that particular overlay that is next to be combined.

	Page 234, lines 12 - 28	(At those subscriber stations where the information of the program unit field in the meter-monitor information of said second message fails to match information at SPAM-first- precondition register memory ... particular first- condition-test-failed instructions of said conditional-overlay-at-205 instructions cause the control processors, 39J, of said stations to ... complete all conditional-overlay-at-205 instructions and, in so doing, to complete all controlled functions invoked by said second message ...
wherein said method controls said receiver station.	Page 40, lines 17 - 20	The signals of the present invention are the modalities whereby stations that originate programming transmissions control the handling, generating, and displaying of programming at subscriber stations.
	For example, page 514, line 32 - page 515, line 2	(In addition to the above described functioning, transmitting said messages in examples #9 and #10 causes apparatus at subscriber stations of particularly slow microcomputers, 205, said field distribution system, 93, to function in the restoring efficiency fashion described above. Receiving each of said commence-outputting messages causes ...